

1285-0007

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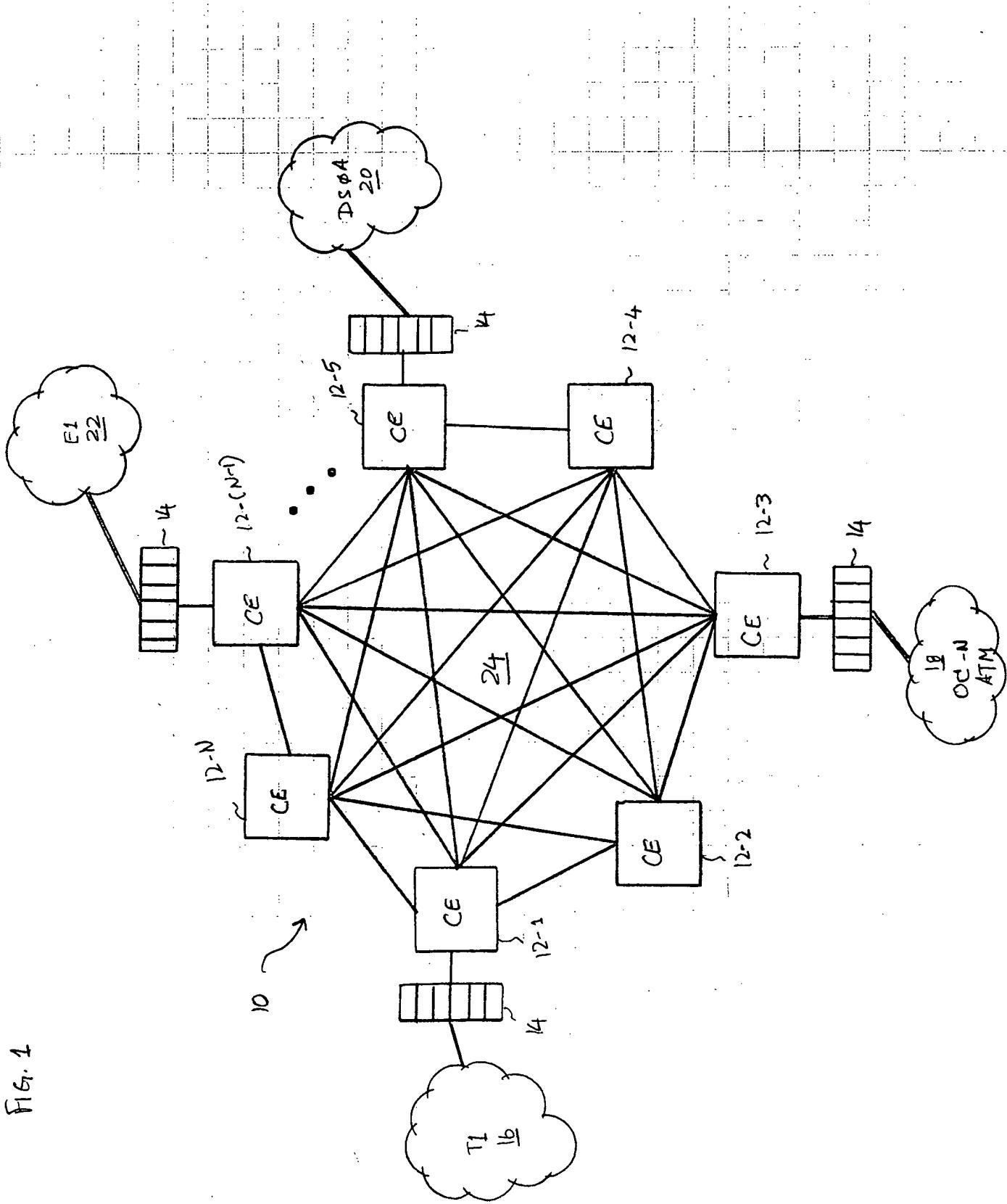


Fig. 1

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(2)

FIG. 2

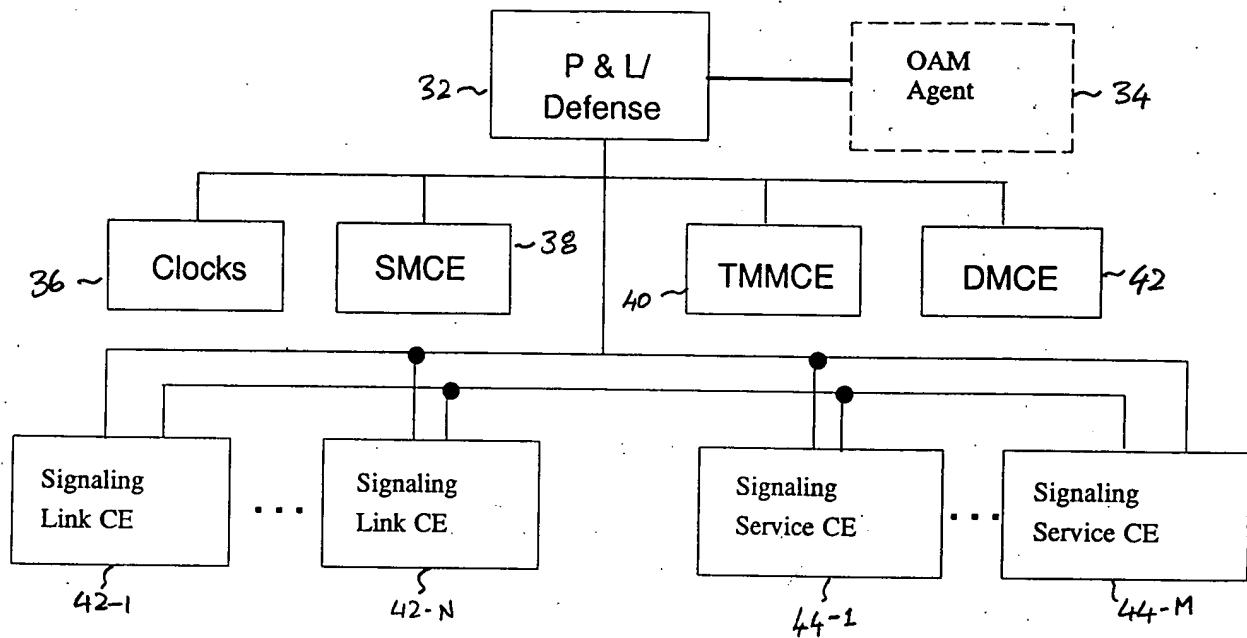
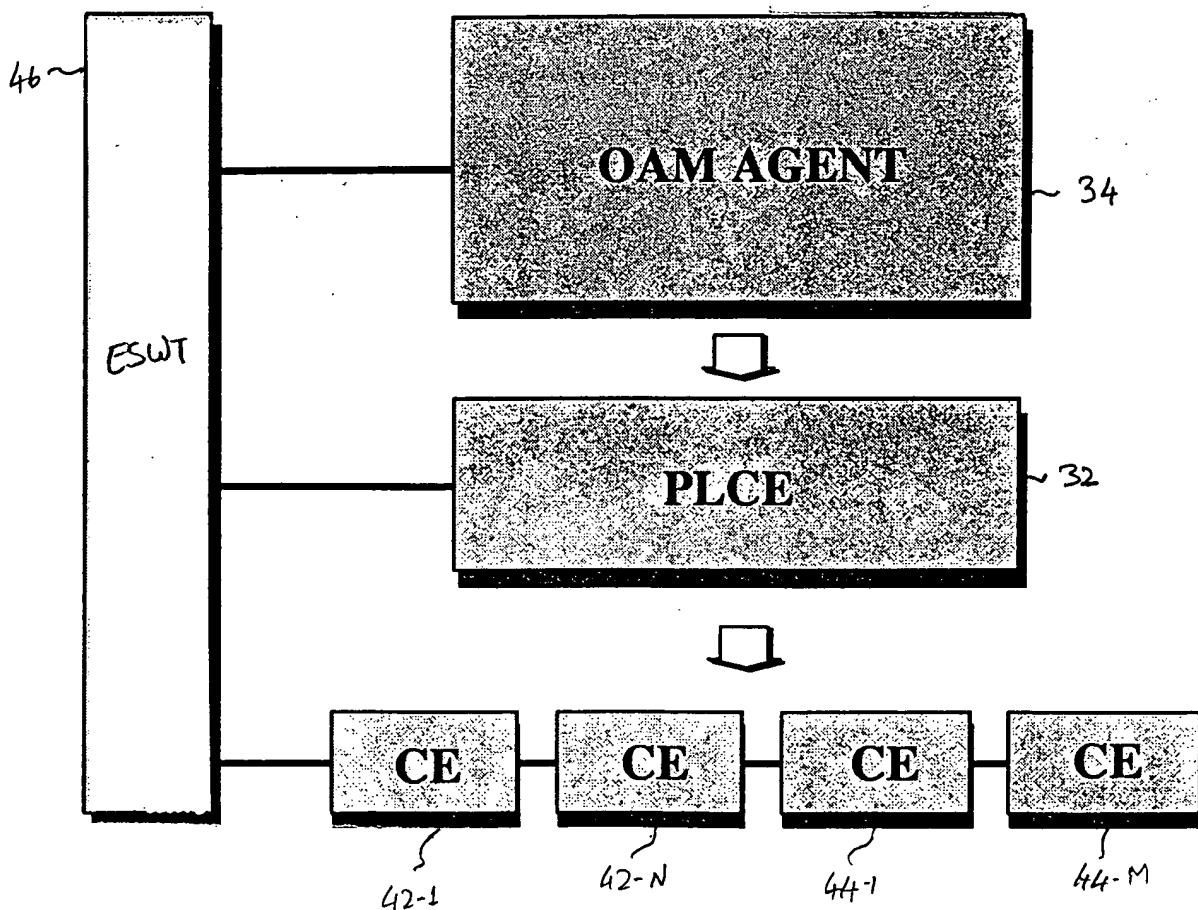


FIG. 3



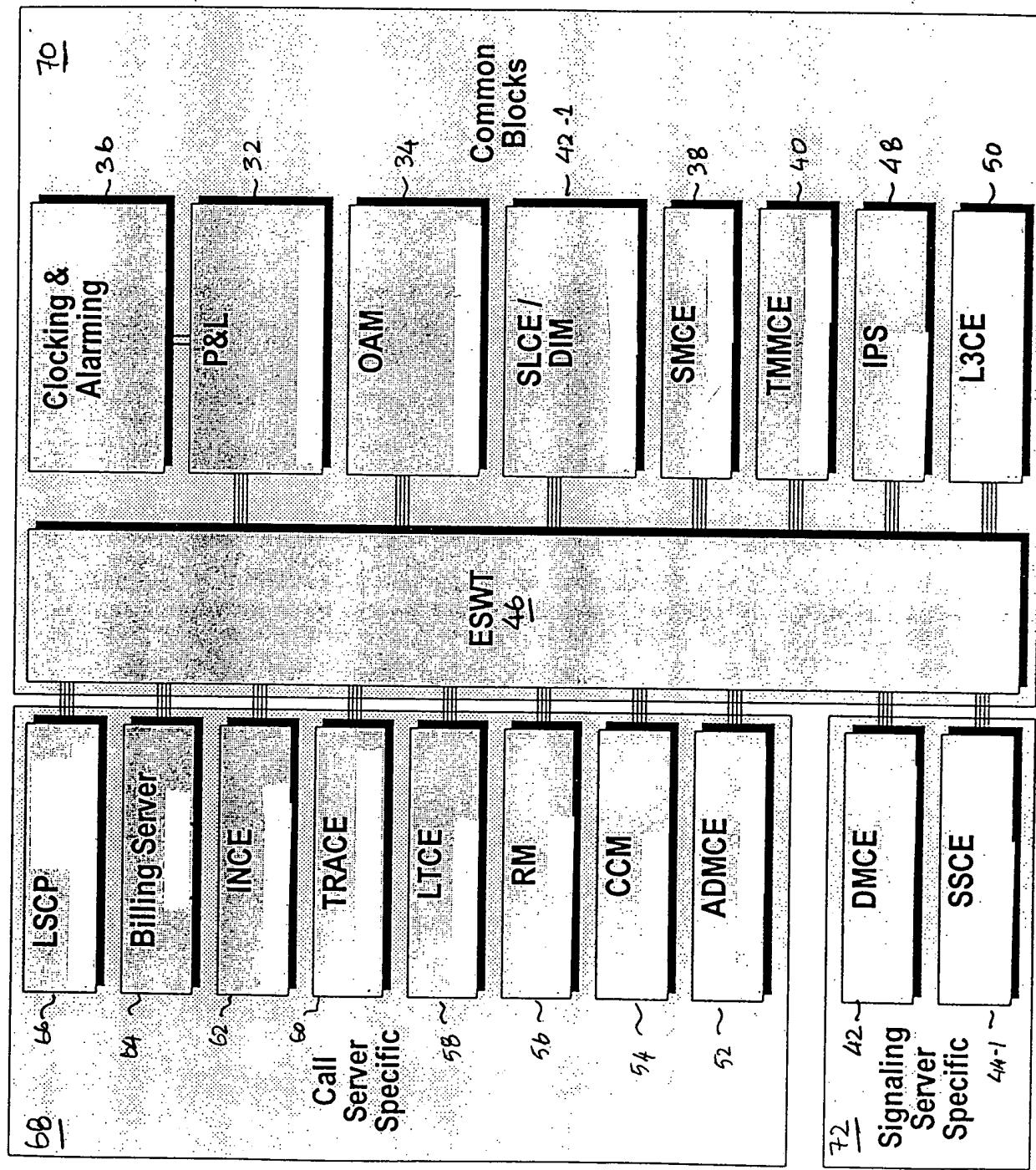


FIG.4

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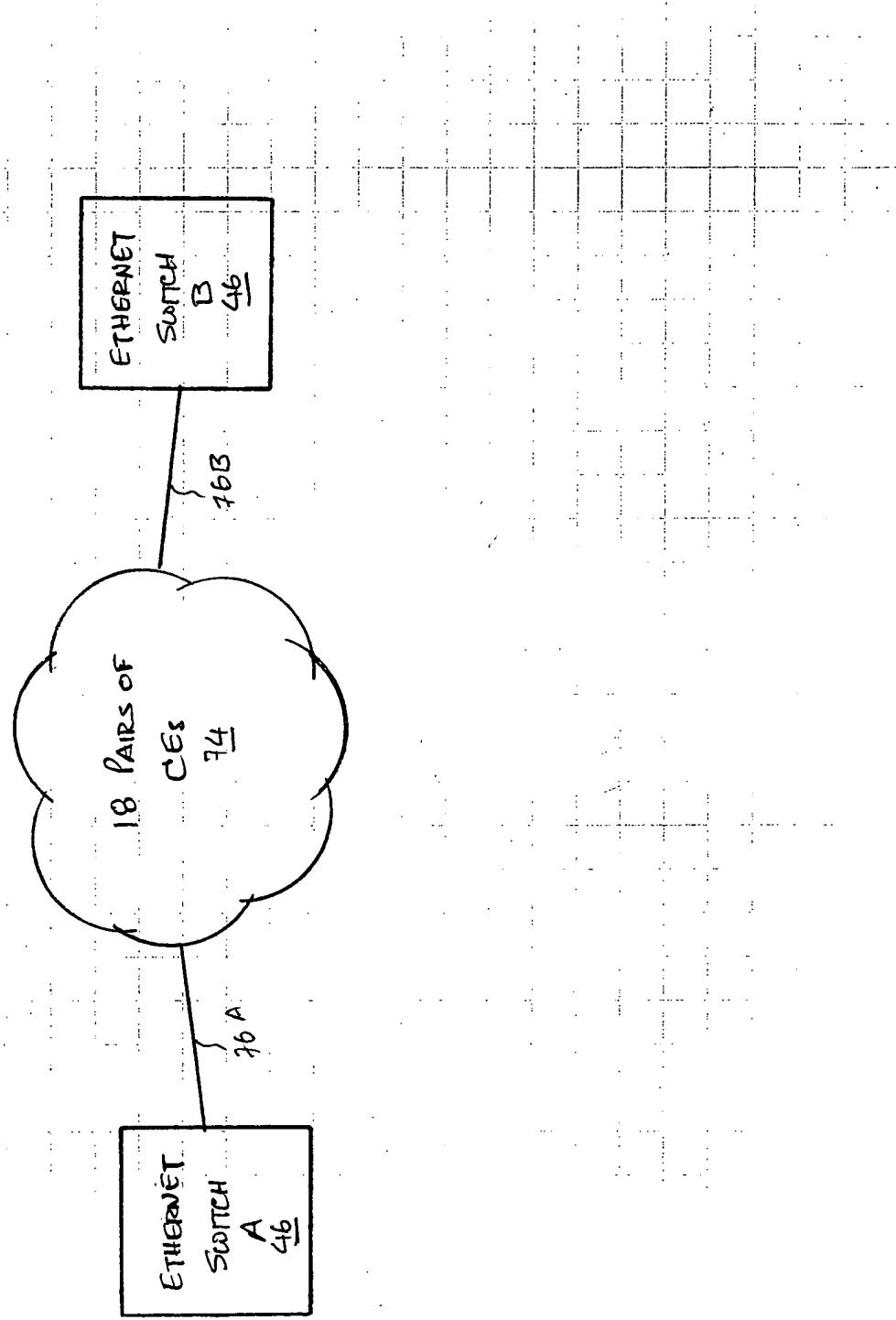
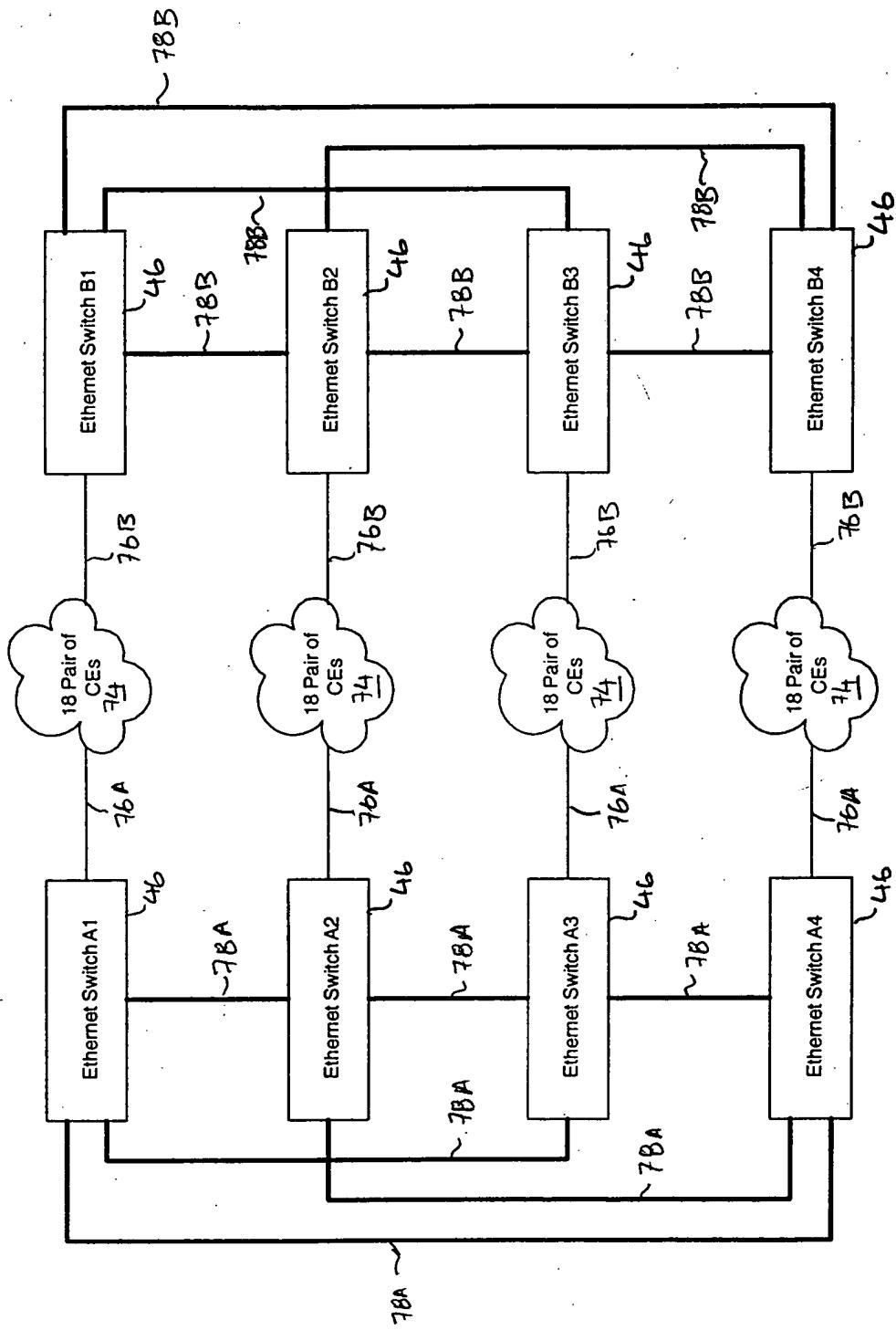


FIG. 5A

Fig. 5B

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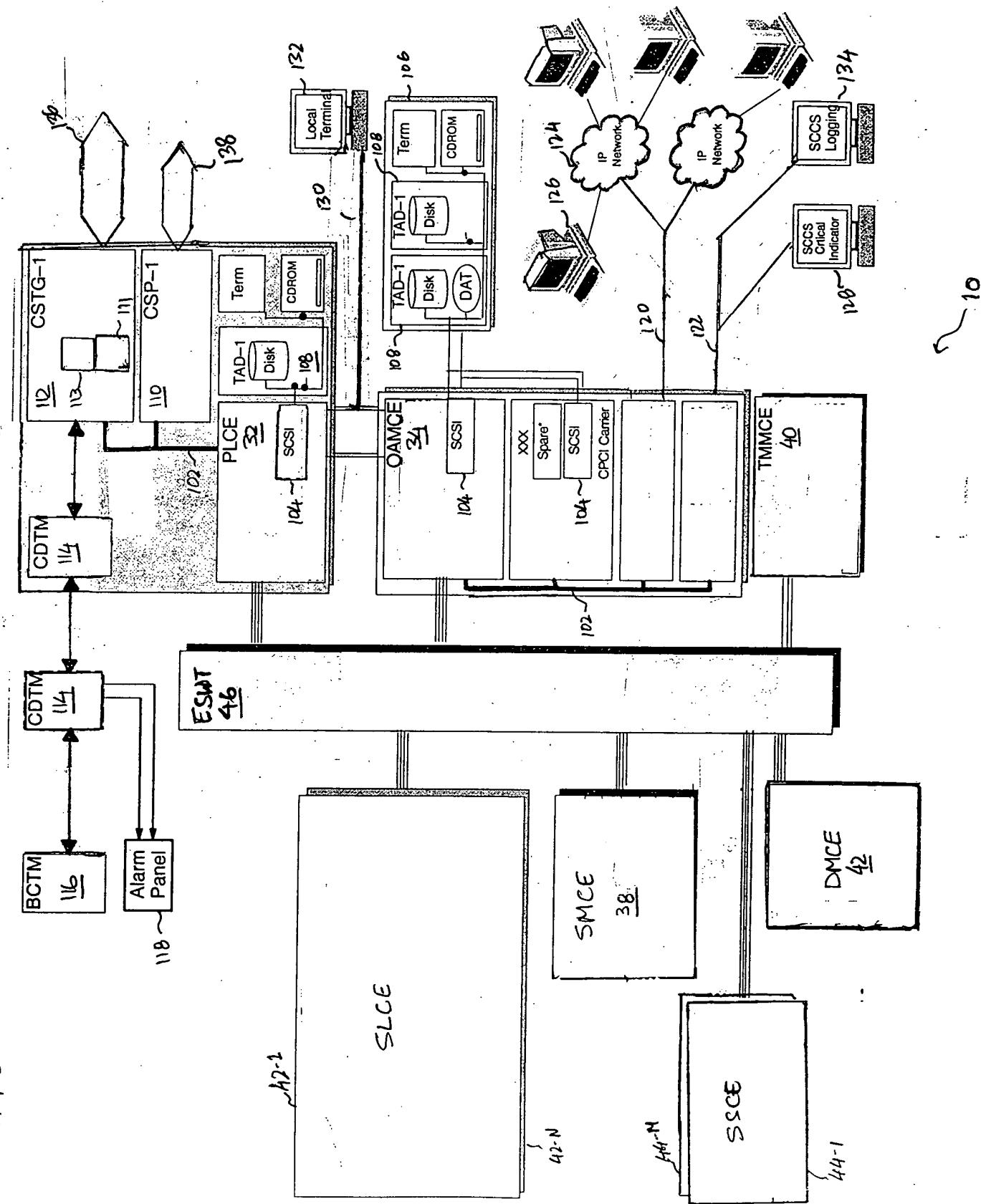


Fig. 6

FIG. 7

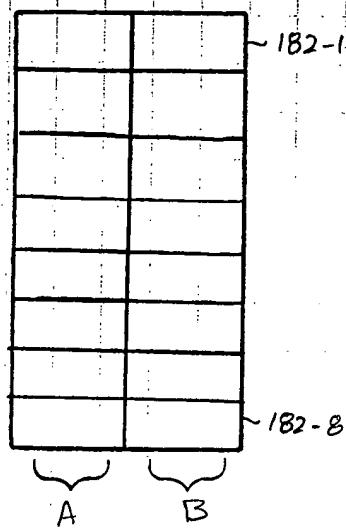


FIG. 8

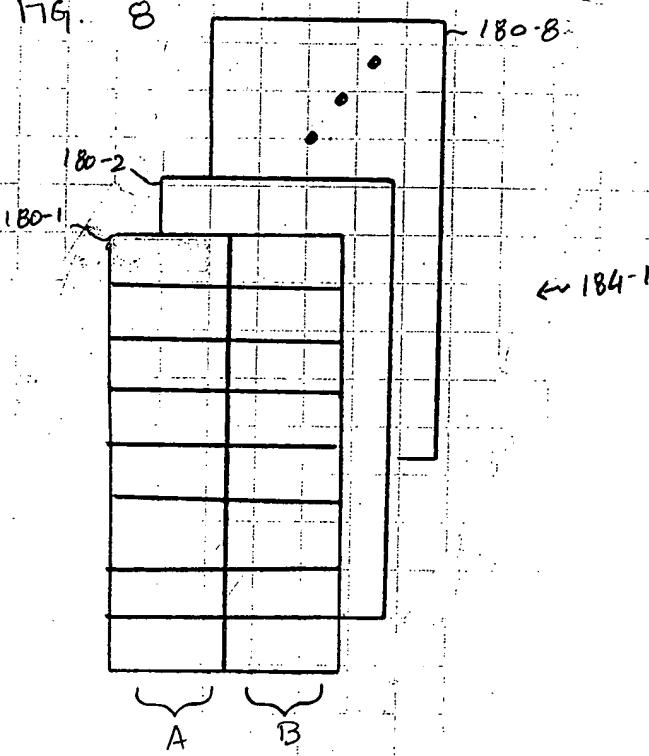
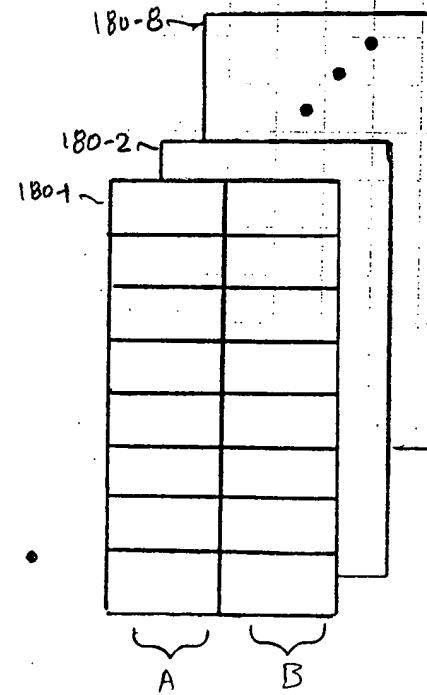
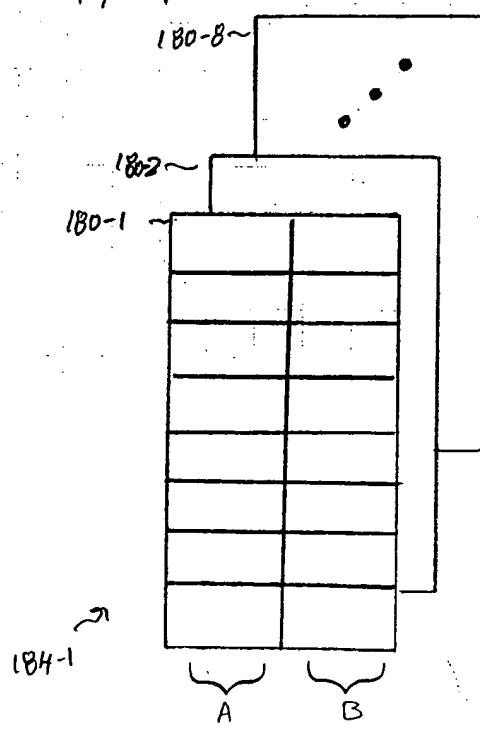


FIG. 9



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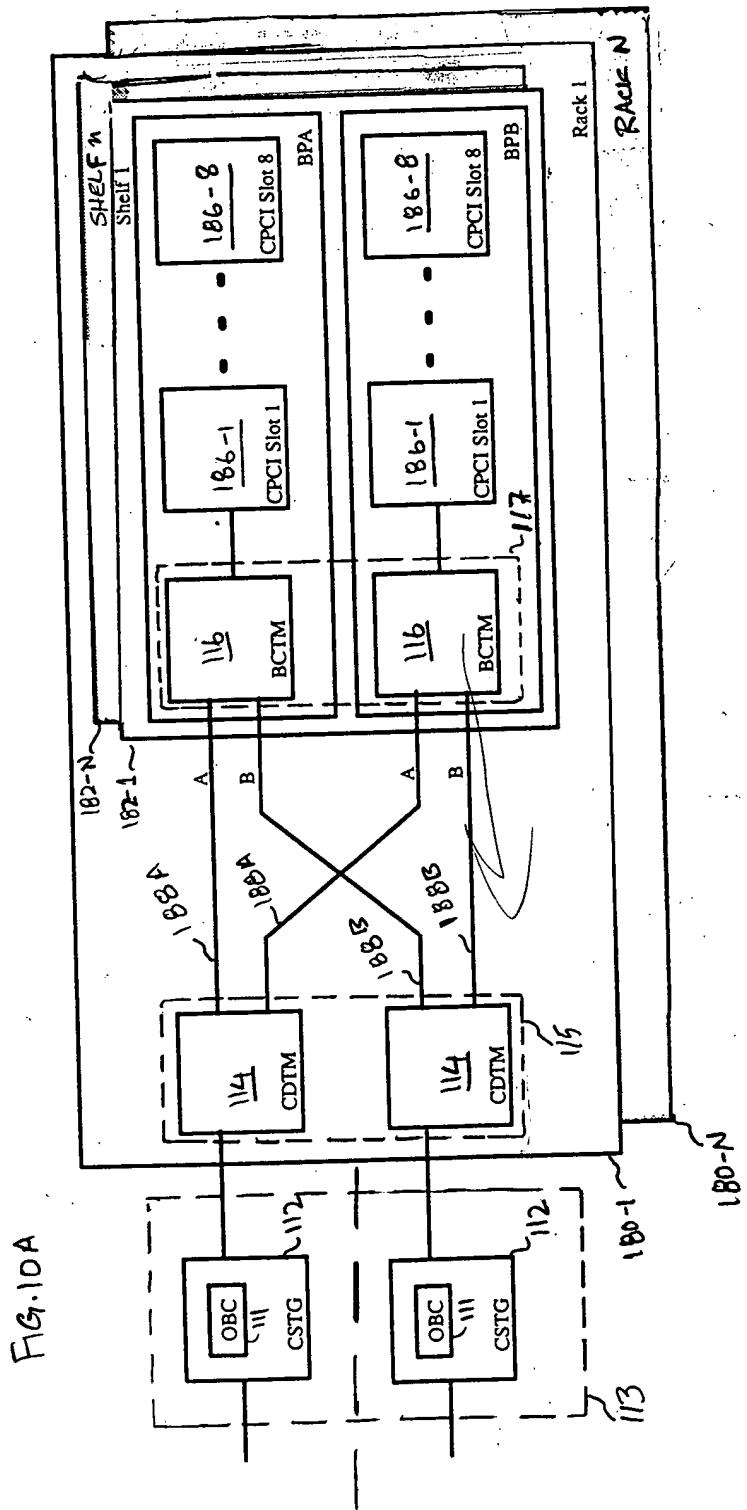


FIG.10A

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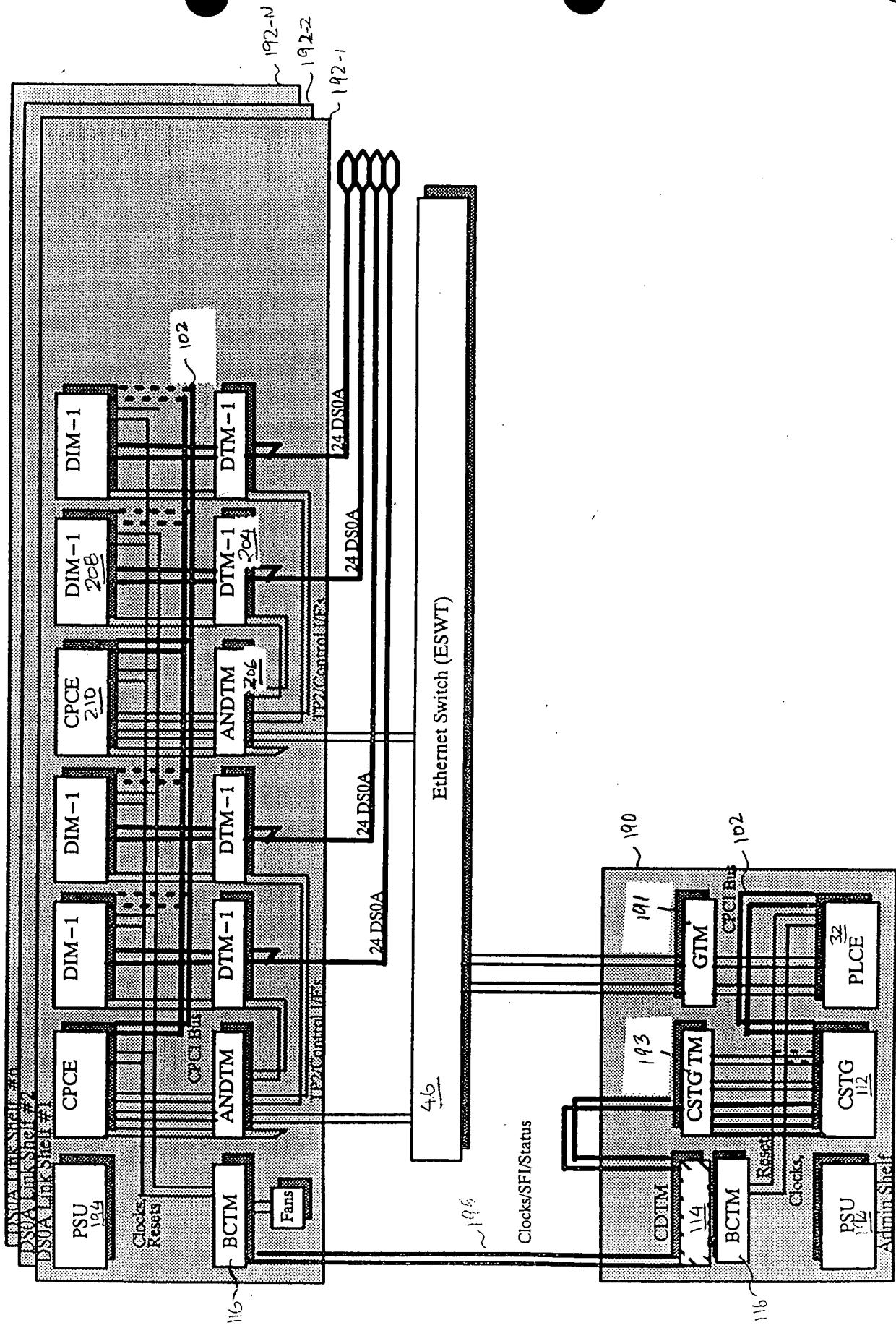


FIG. 10C

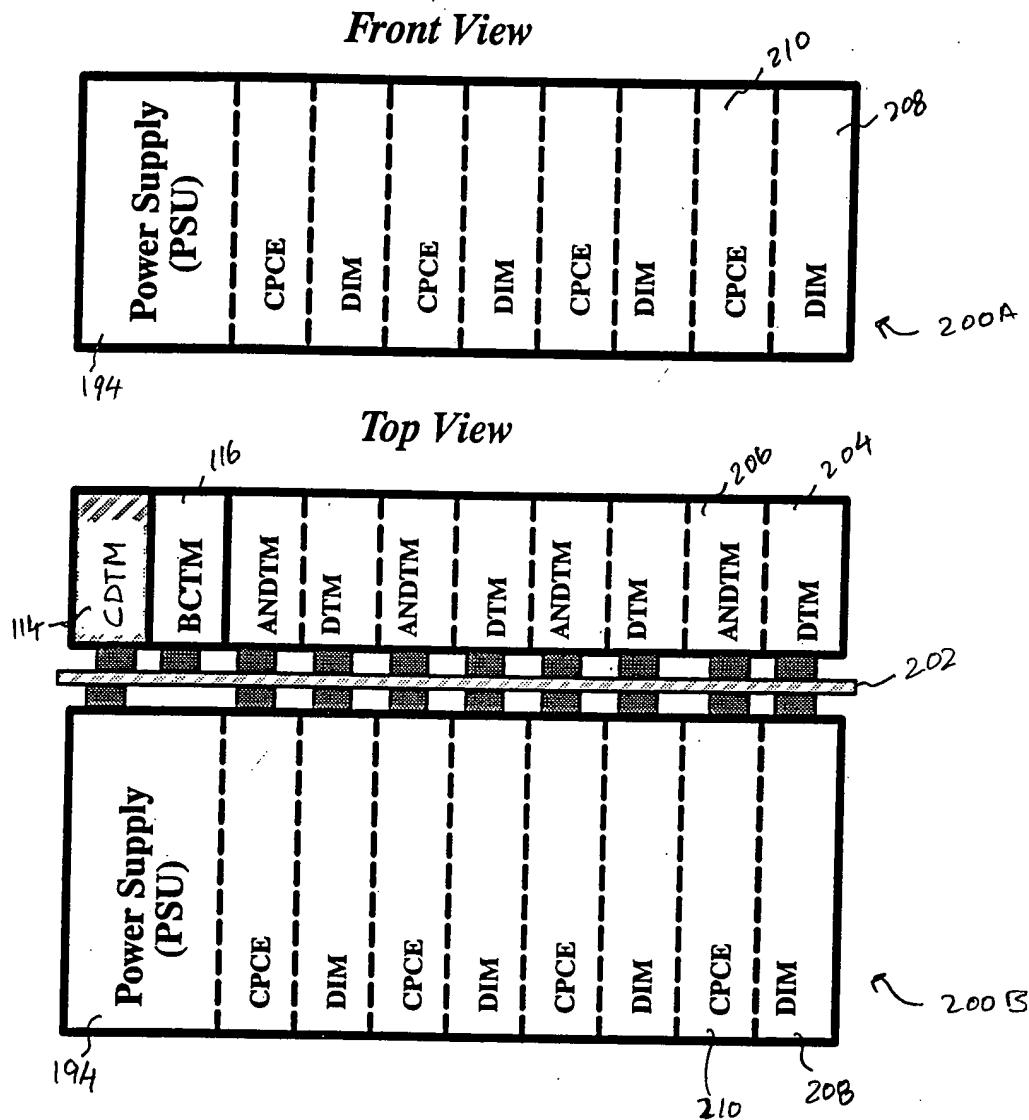
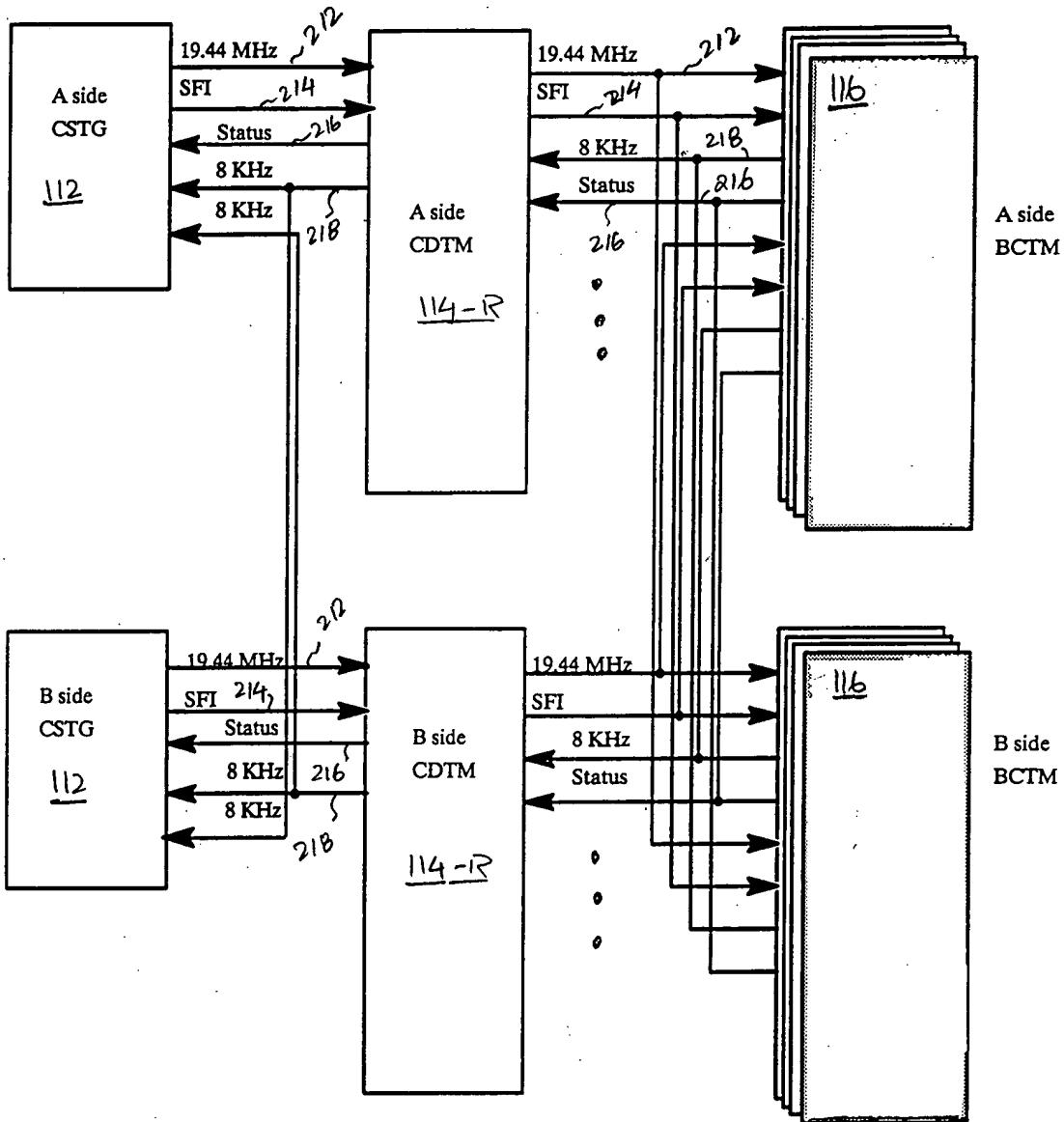


FIG. 11A



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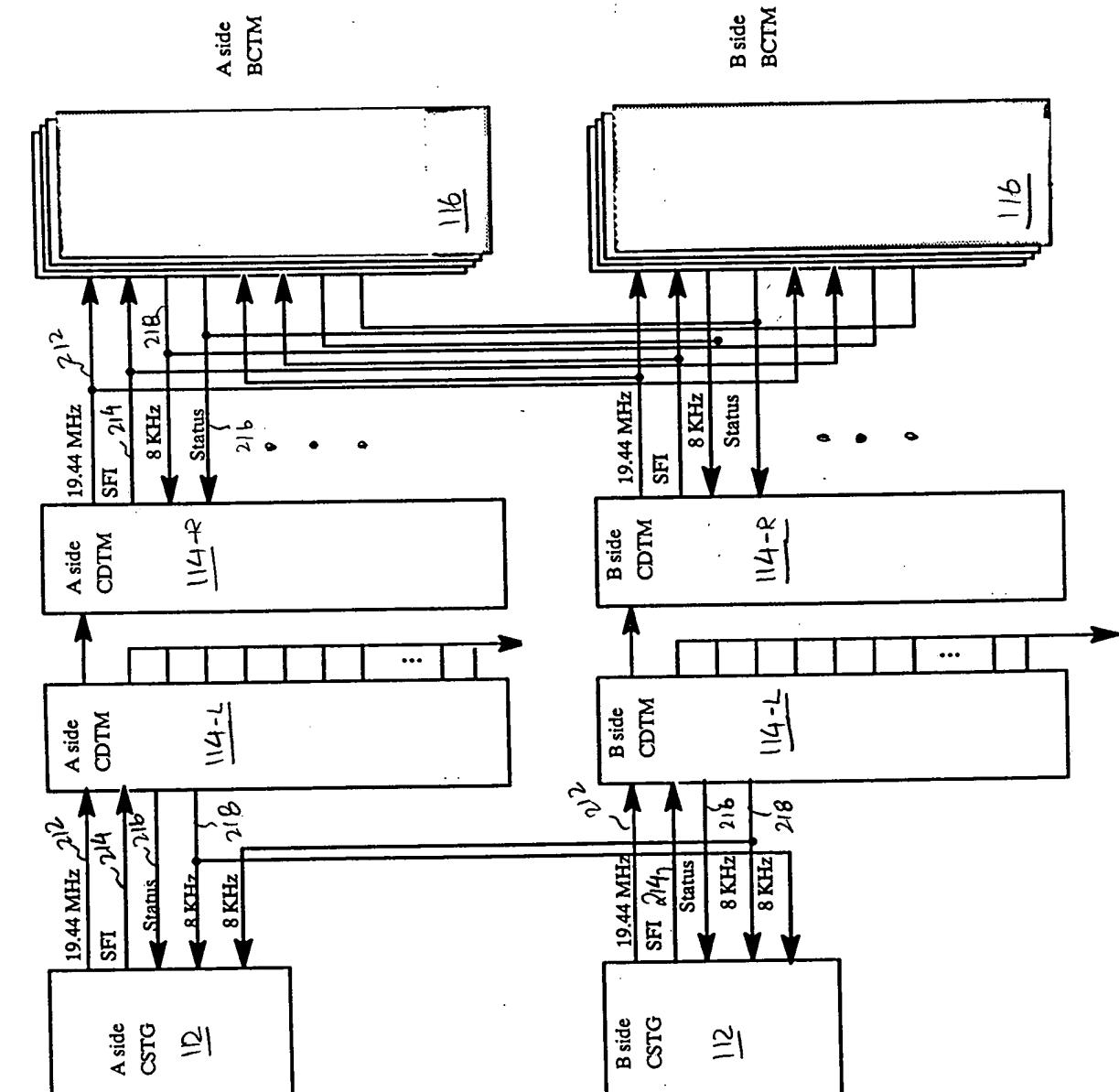


Fig. 11B

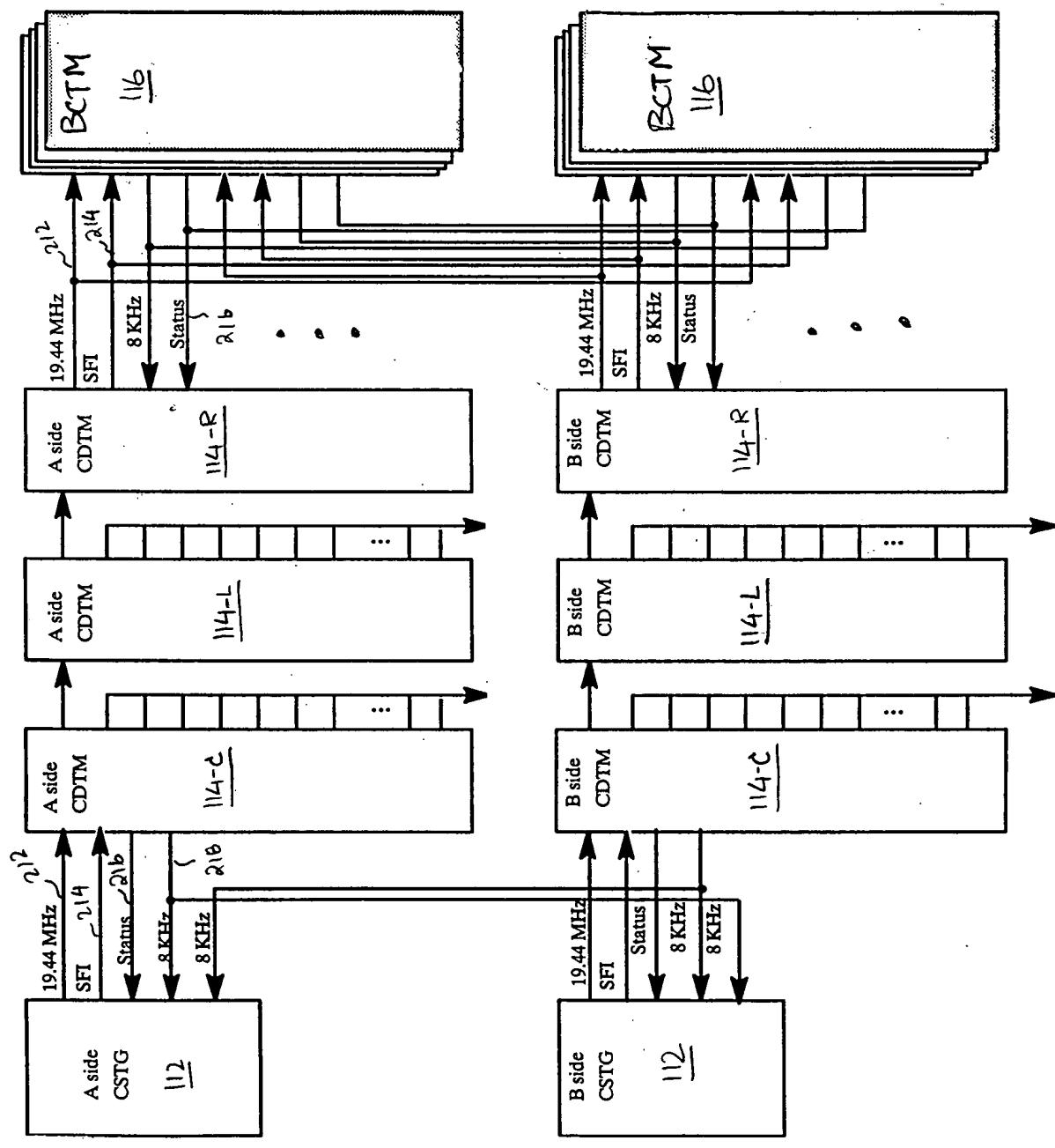


Fig. 11C

FIG. 12 A

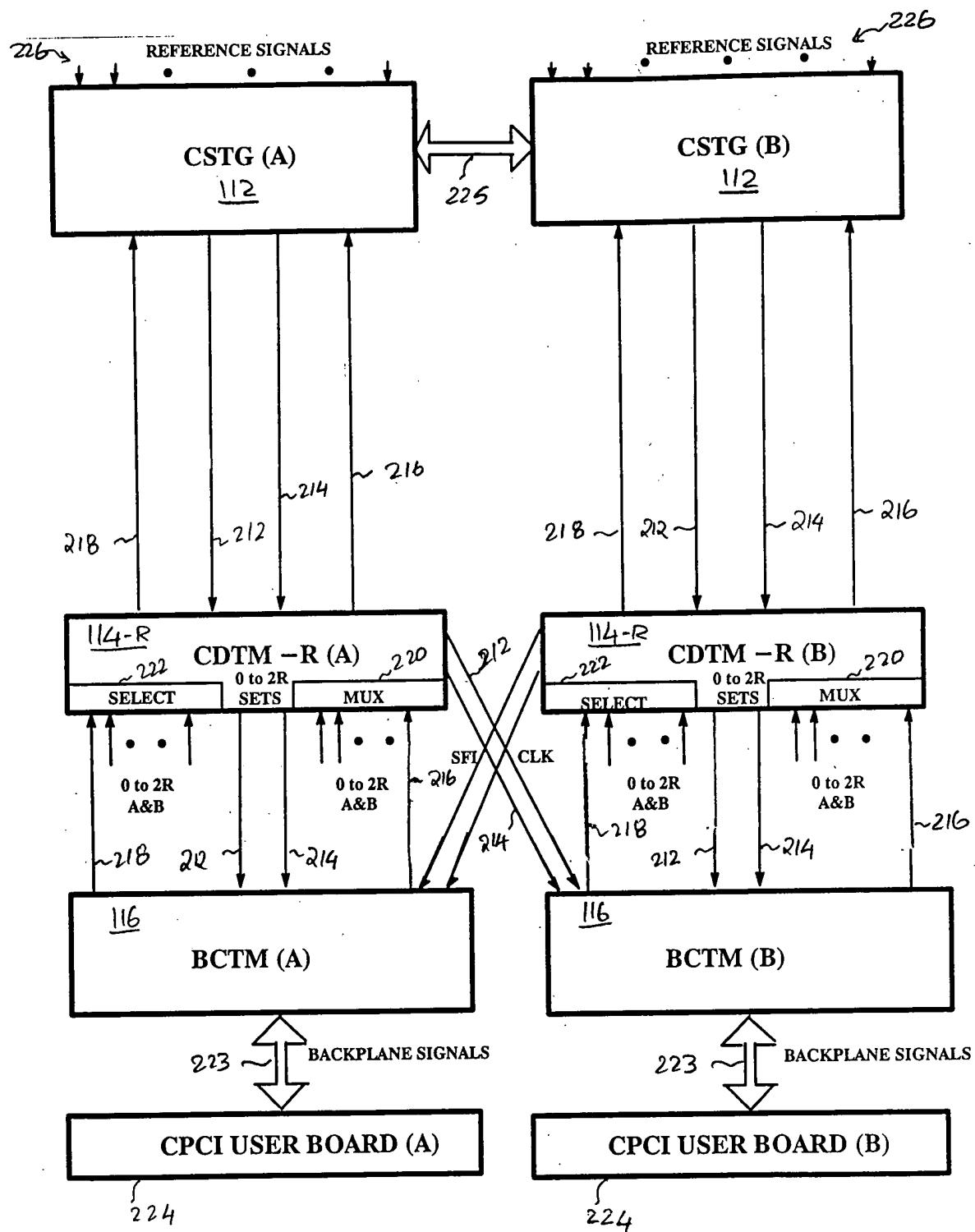


FIG. 12B

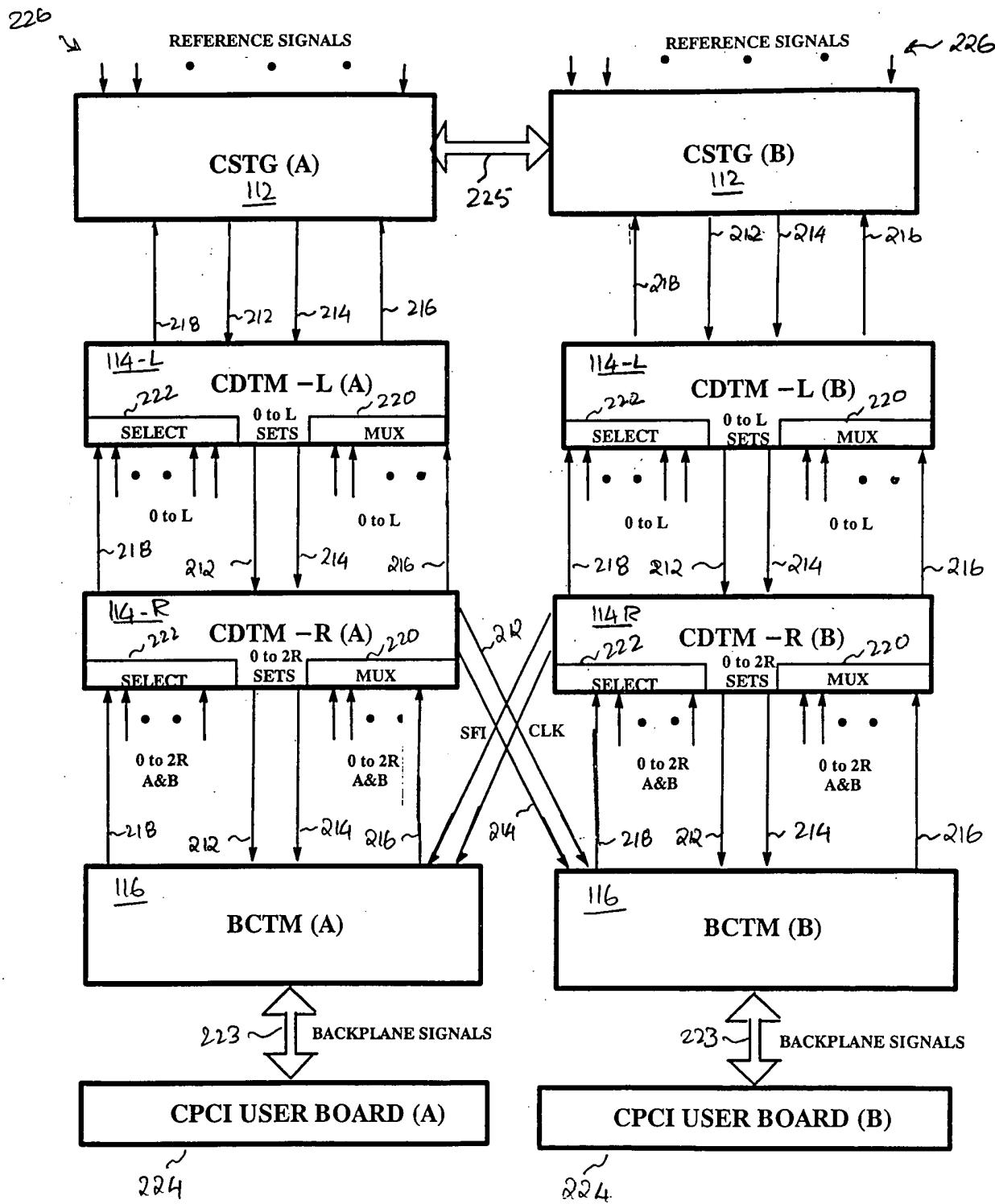


FIG. 12C

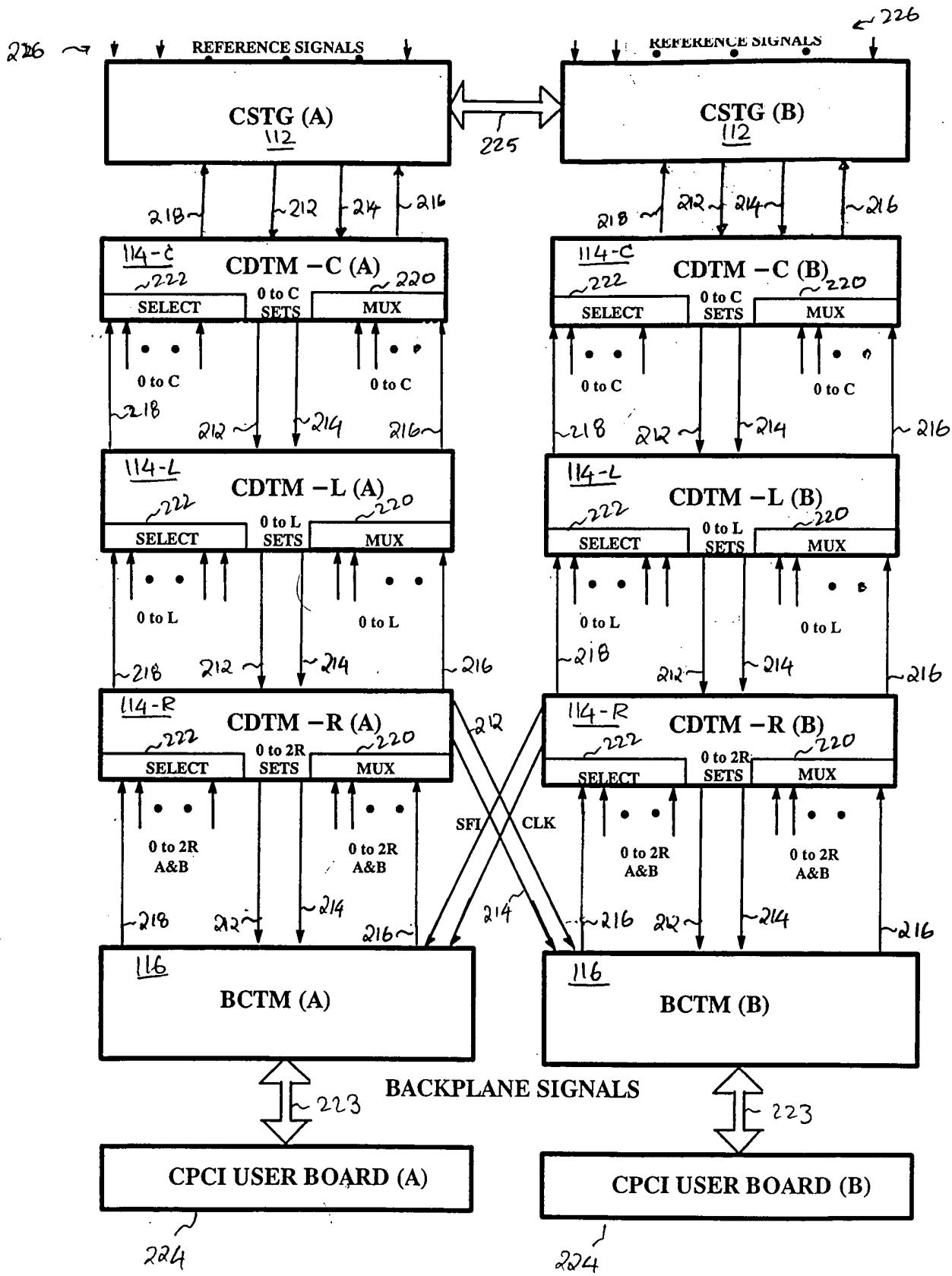


FIG. 13 A

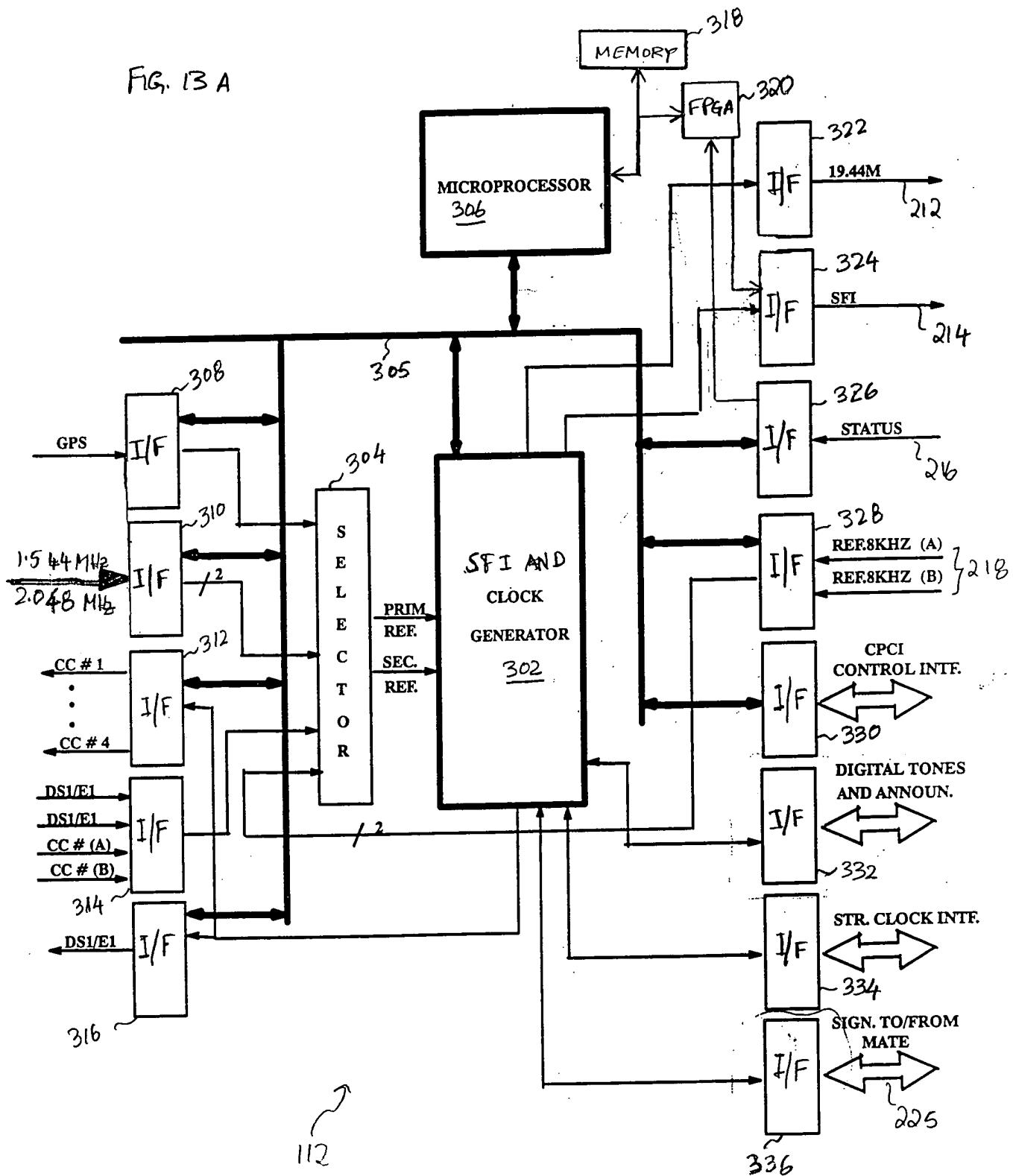


Fig. 13 B

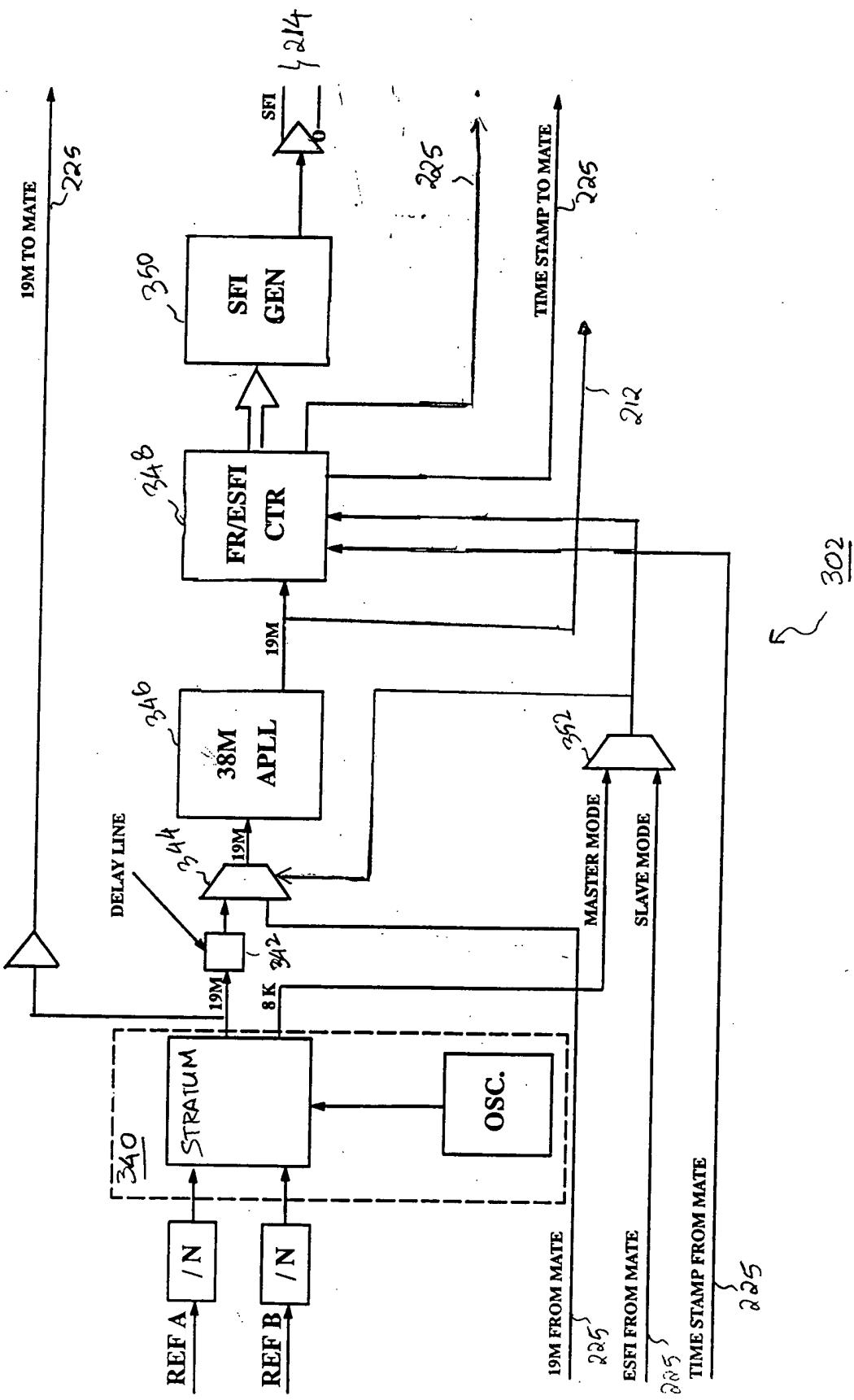


FIG. 14

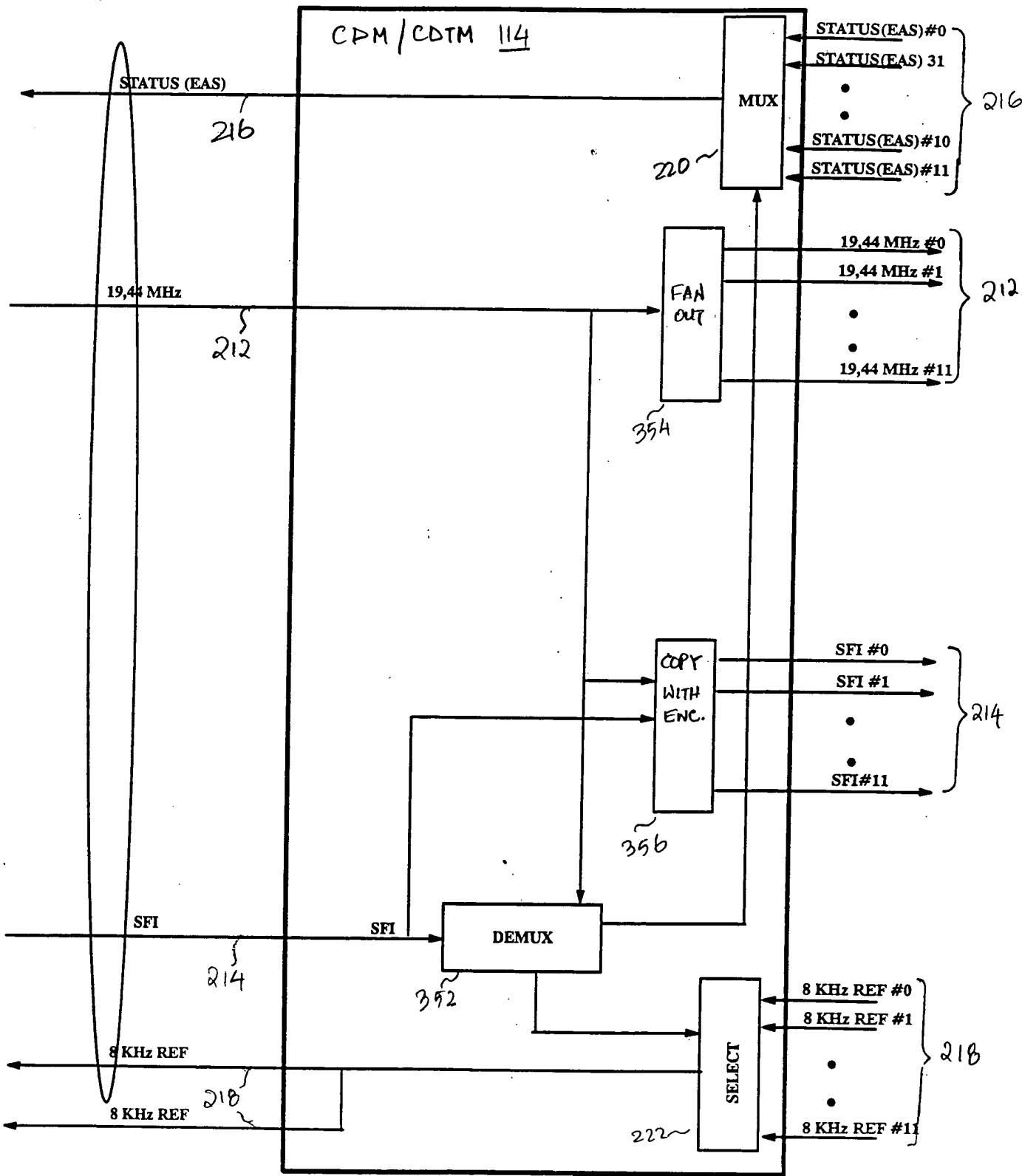


FIG. 15

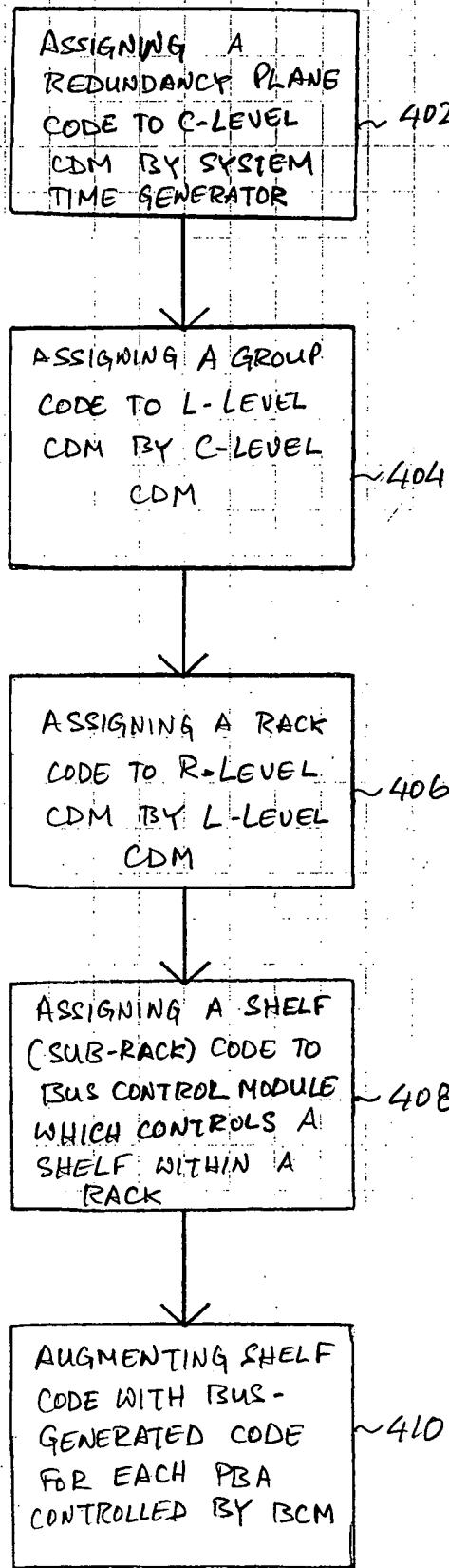
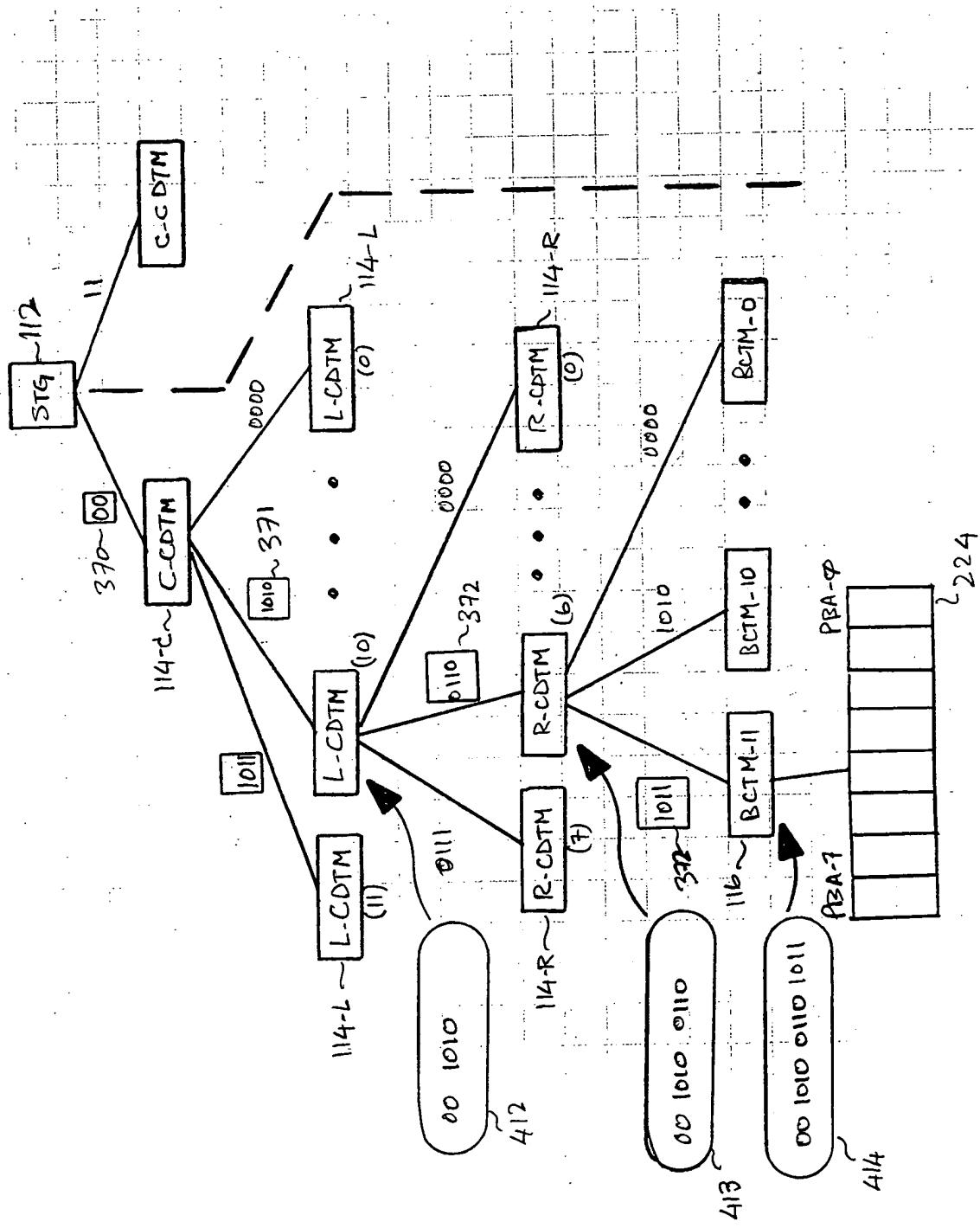


Fig. 16



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FIG. 17 A

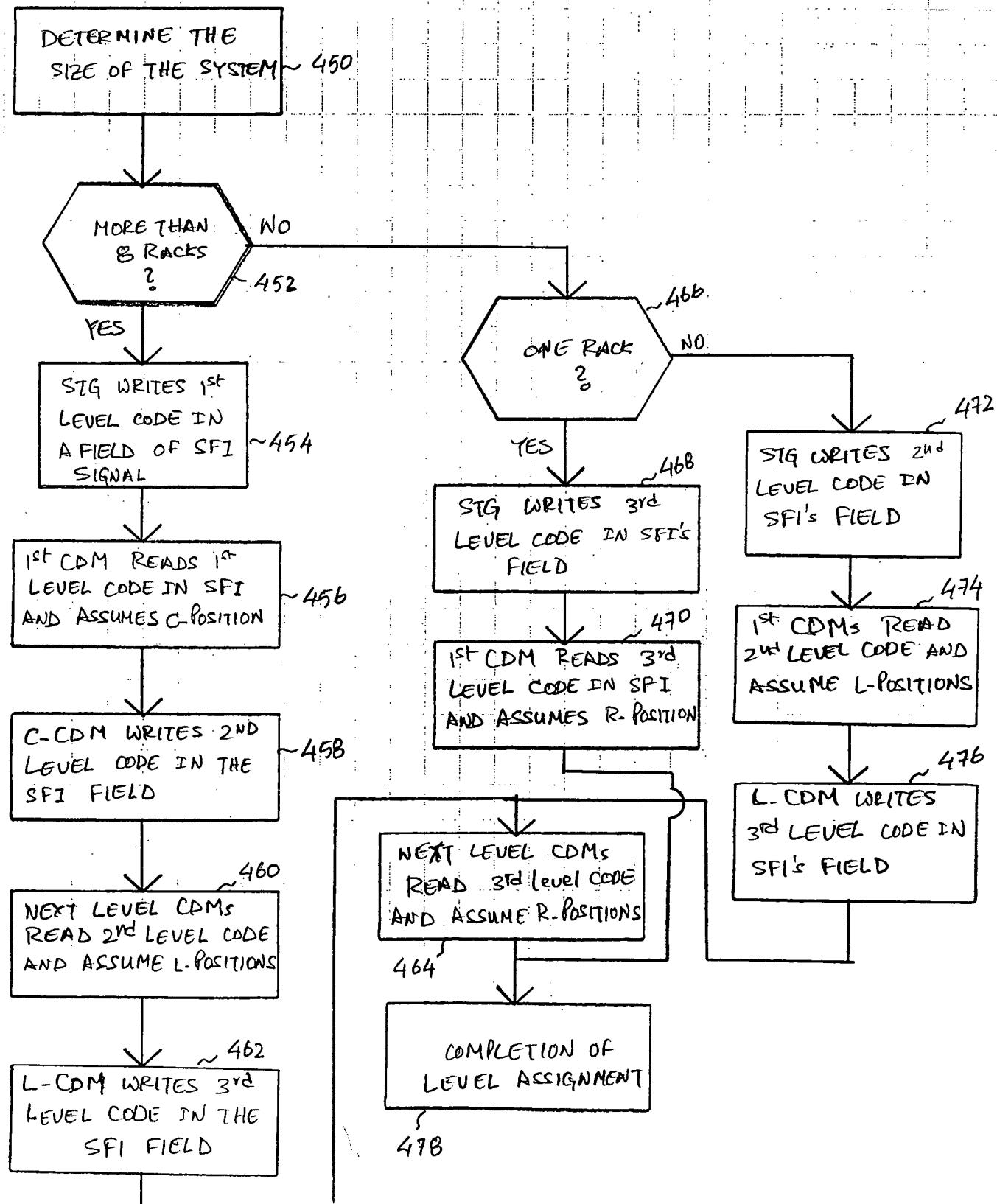


FIG. 17B

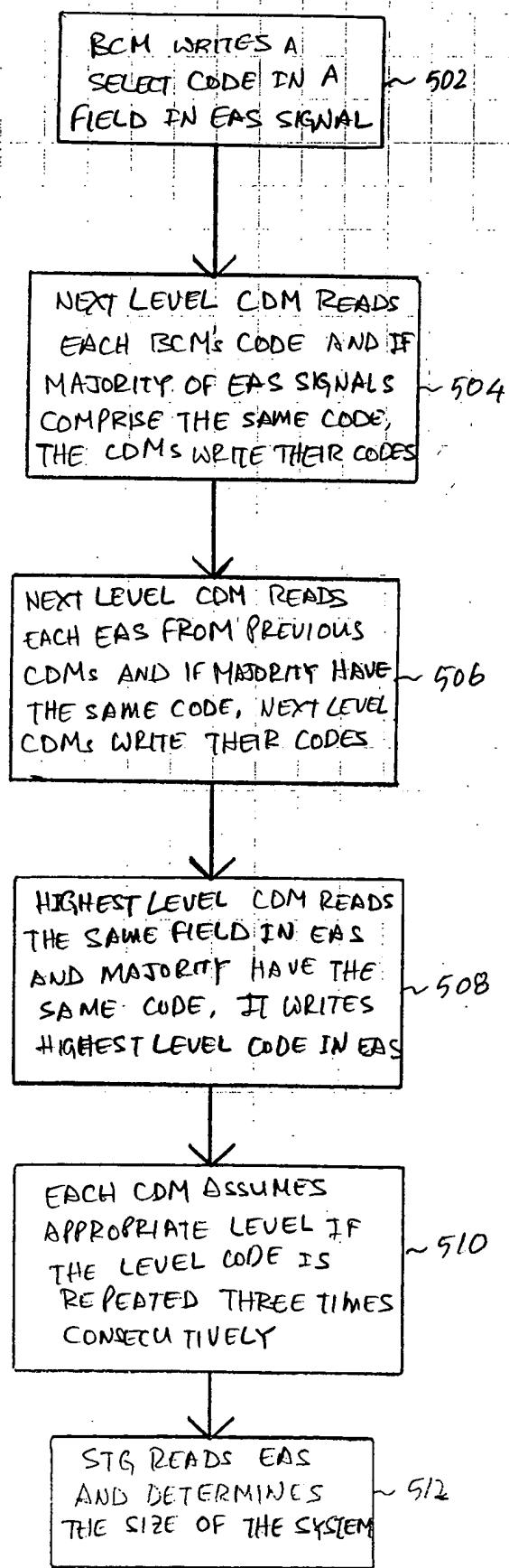
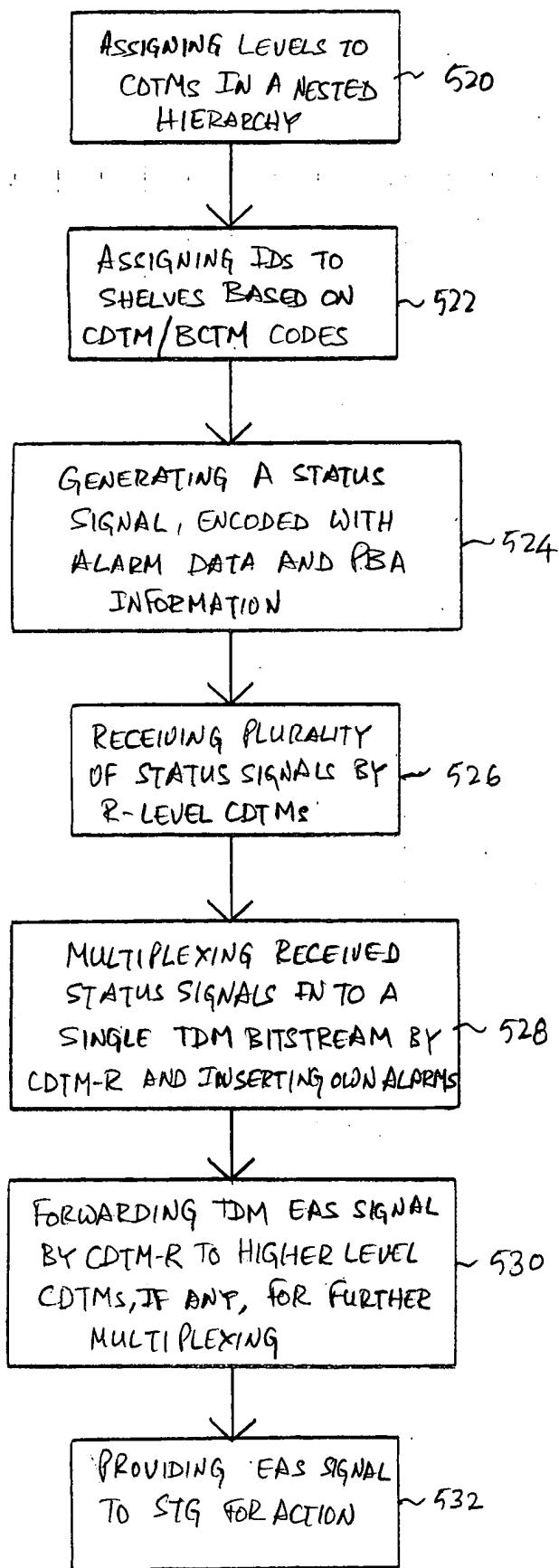


FIG. 18



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Fig. 19A

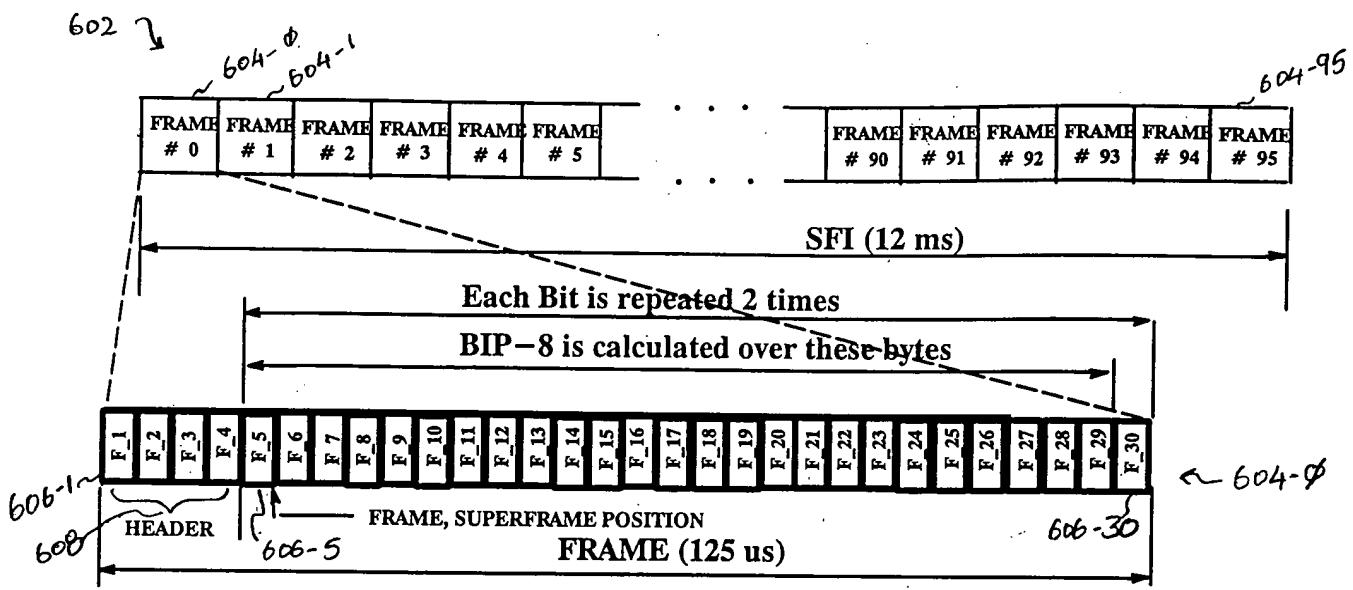
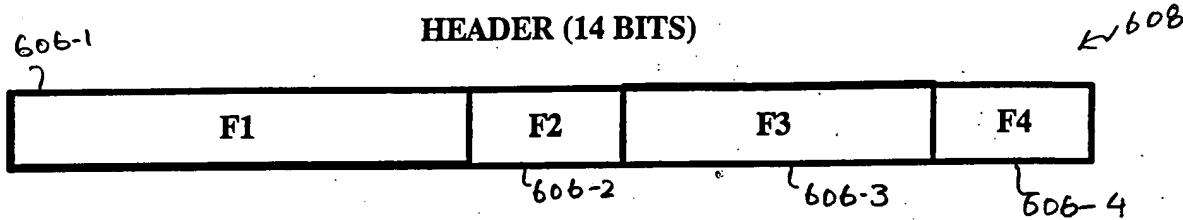


Fig. 19B



F1: 6 BITS FOR SYNCHRONIZATION (010101)

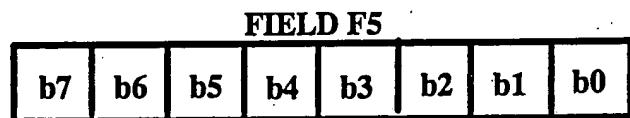
F2: 2 BITS FOR TIME STAMP (11 EVERY 68th SFIs, 00 in the rest)

F3: RESERVED

F4: 2 BITS FOR PLANE ID (00 FOR PLANE "A" AND 11 FOR PLANE "B")

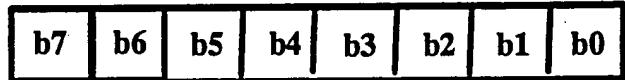
OUTLINE DRAWING

Fig. 19C



b7 to b0 = Bits assigned for Frame Count (0 to 95)

FIELD F6



b7 to b5 = Bits allocated for SFI Count (0 to 7)

b4 = Bit assigned for SFI "O.K." (1 for O.K.)

b3 = Bit assigned for Clock "O.K." (1 for O.K.)

b2 to b0 = Reserved

FIG. 19 D

FIELD F7

6 BYTES ALLOCATED FOR TOD

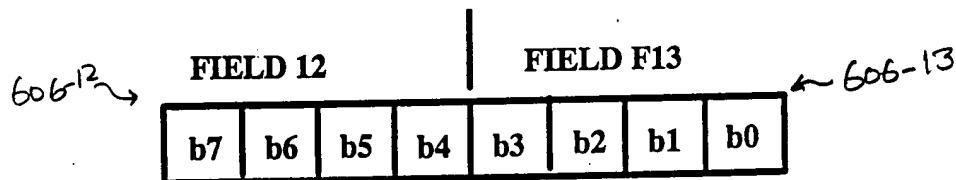
~ 606-7

FIELD F8

64 BYTES FOR TONE Bus

~ 606-8

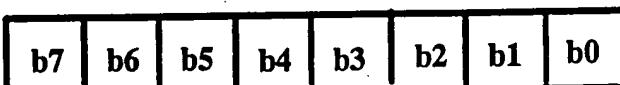
FIG. 19 F



b7 TO b4 : MSN FOR SHELF ID; IT IS INSERTED BY CDTM HIGHEST LEVEL
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 1011

b3 TO b0 : SECOND NIBBLE OF THE SHELF ID INSERTED BY CDTM INTERMEDIATE
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 0111

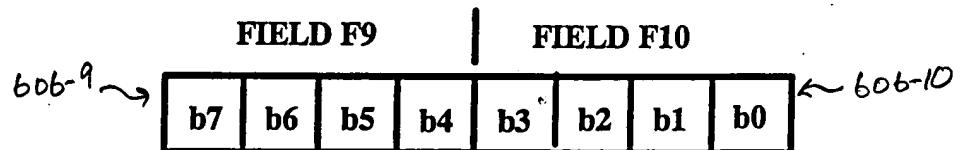
FIELD F14



b7 TO b4 : LSN FOR SHELF ID INSERTED BY CDTM LOWEST LEVEL
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 1011

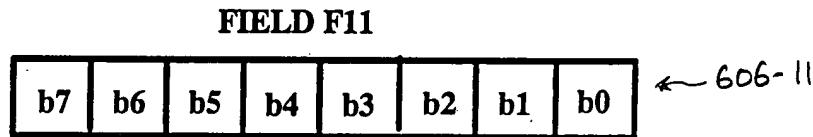
b3 TO b0 : RESERVED

FIG. 19E



b7 TO b4 : MSN FOR SHELF ID; IT IS INSERTED BY CDTM HIGHEST LEVEL
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 1011

b3 TO b0 : SECOND NIBBLE OF THE SHELF ID INSERTED BY CDTM INTERMEDIATE
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 0111



b7 TO b4 : LSN FOR SHELF ID INSERTED BY CDTM LOWEST LEVEL
 EACH PORT IS ASIGNED A VALUE FROM 0000 TO 1011
b3 TO b0 : RESERVED

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Fig. 19G

FIELD #15 (F15)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

← 606-15

b7: indicate that a clock is selected by the CDTM Highest Level

b7 = 0 (no clock selected)

b7 = 1 (one of 12 clocks selected)

b6 to b3: the code of the port selected (0000 to 1011)

b2 = Bit set to force the alarms

b1, b0 = Reserved

CDTM = CDTM Data Transfer Method

Fig. 19M

FIELD #30 (F30)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

606-30 →

b7 to b0: Bits for parity check (BIP-8)

BIP-8 IS AN "EVEN" PARITY CHECK

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FIG. 19H

FIELD #16 (F16)

b7	b6	b5	b4	b3	b2	b1	b0	← b0b-16
----	----	----	----	----	----	----	----	----------

b7: indicate that a clock is selected by the CDTM Middle Level

b7 = 0 (no clock selected)

b7 = 1 (one of 8 clocks selected)

b6 to b3: the code of the port selected (0000 to 0111)

b2 ≡ Bit set to force the alarm

b1, b0 ≡ Reserved

Fig. 191

FIELD #17(F17)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

 ↙ 606-17

b7: indicate that a clock is selected by the CDTM Lowest Level

b7 = 0 (no clock selected)

b7 = 1 (one of 12 clocks selected)

b6 to b3: the code of the port selected (0000 to 1011)

b2 = Bit set to force the alarm

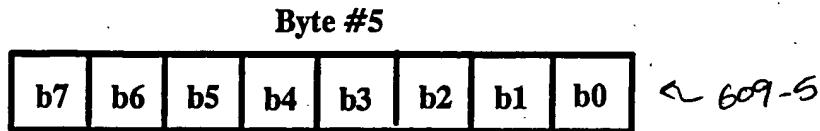
b1 b0 = Reserved

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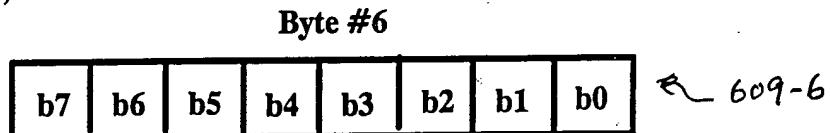
FIG. 19J

FIELD #F18 TO #F27							
Byte #1							
b7	b6	b5	b4	b3	b2	b1	b0
$\sim 606-10$ To $606-27$							
$\sim 609-1$							
b7 = 1 RESET SLOT #0							
b6 = 1 RESET SLOT #1							
b5 = 1 RESET SLOT #2							
b4 = 1 RESET SLOT #3							
Byte #2							
b7	b6	b5	b4	b3	b2	b1	b0
$\sim 609-2$							
b7 = 1 RESET BCTM							
b6 = 1 RESET ESWT#1							
b5 = 1 RESET ESWT#2							
b4 = 1 RESET RESERVED							
Byte #3							
b7	b6	b5	b4	b3	b2	b1	b0
$\sim 609-3$							
b7 = PWR DOWN SLOT #0							
b6 = PWR DOWN SLOT #1							
b5 = PWR DOWN SLOT #2							
b4 = PWR DOWN SLOT #3							
Byte #4							
b7	b6	b5	b4	b3	b2	b1	b0
$\sim 609-4$							
b7 = 1: Clock Selected by BCTM							
b6 TO b4: the code of selected clock (000 to 111)							
b3, b2 = Plane selection (A or B)							
b1 = Turn ON/OFF rack alarm							
b0 = 1: Force Shelf Alarms							

FIG. 19K



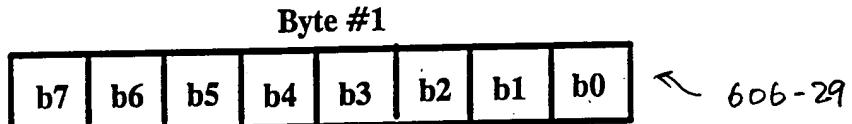
b7 to b4 = Bits allocated for SSM code
b3 = Bit set to inhibit errors reporting on plane from Plane A
b2 = Bit set to indicate errors reporting from Plane B
b1, b0 = Reserved



b7 to b0 : Bits allocated to tristate all backplane signals per PBA.

FIG. 19L

FIELD F29



b7 = Reserved
b6 = Bit allocated for Heartbeat
b5 = Bit allocated for Critical Indicator
b4 = Bit allocated for Major Indicator
b3 = Bit allocated for Minor Indicator
b2 = Bit allocated for Critical Audible
b1 = Bit allocated for Major Audible
b0 = Bit allocated for Minor Audible

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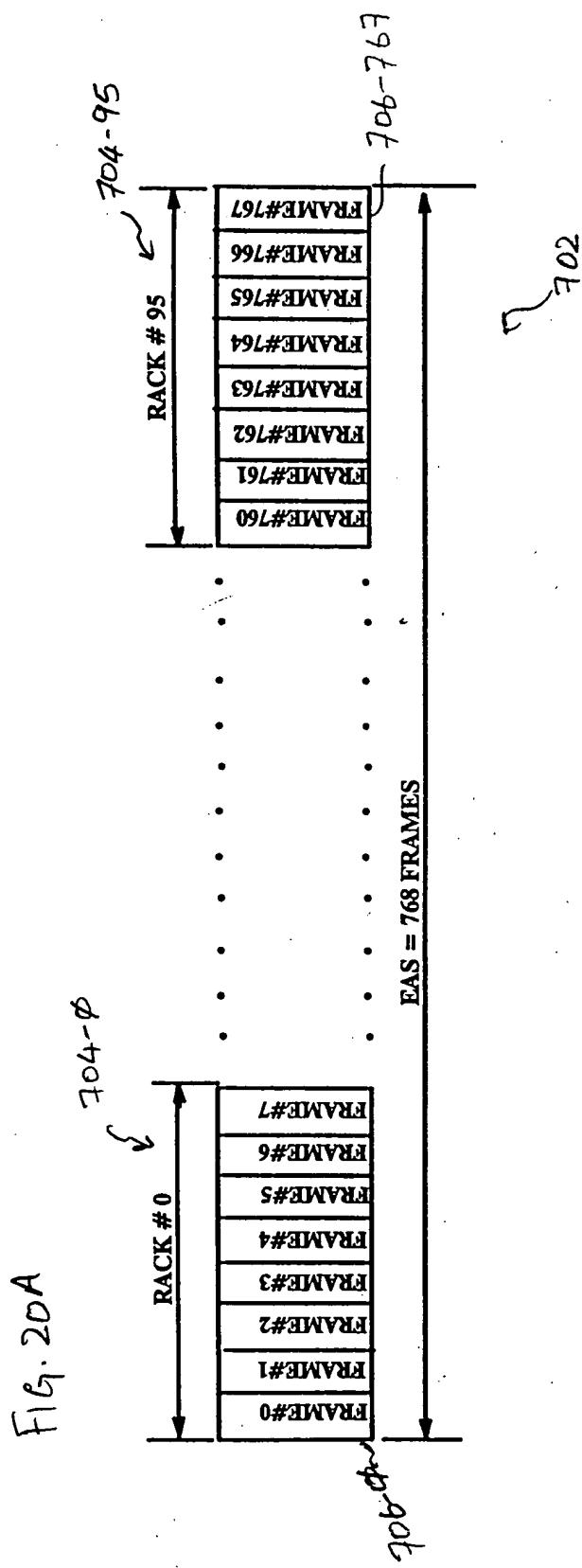


Fig. 20A

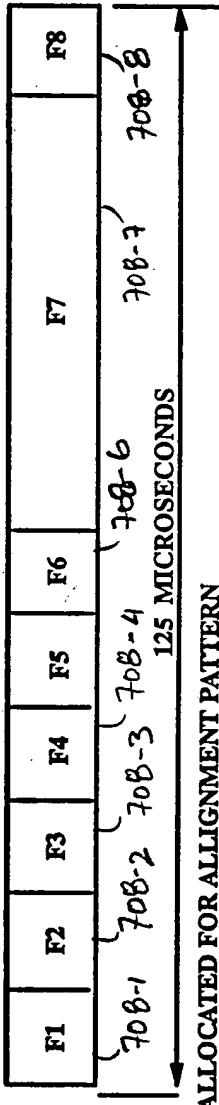
Fig. 20B

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FRAME #0 (THIS FRAME IS ALLOCATED FOR CDTM HIGHEST LEVEL)



F1 = 1 BYTE ALLOCATED FOR ALIGNMENT PATTERN

F2 = 1 BYTE ALLOCATED FOR MISC. SIGNALS

F3 = 2 BYTES ALLOCATED FOR STATUS LOA

F4 = 2 BYTES ALLOCATED FOR INBOUND ERRORS (ONE BIT PER PORT)

F5 = 1 BYTE ALLOCATED FOR CLOCK SELECTION

F6 = 4 BITS ALLOCATED FOR BIP-4

F7 = 7.5 BYTES RESERVED

F8 = 1.5 BYTES EMPTY FIELD (FORCED TO "0")

NOTE: ALL FRAMES # N X 64 (N = 1 TO 11) ARE EMPTY

FIG. 20C

FRAME # 0

FIELD F1

b7	b6	b5	b4	b3	b2	b1	b0	← 70B-1
----	----	----	----	----	----	----	----	---------

b7 to b0 = "00111100" : Pattern generated by each CDTM and BCTM cards

FIELD F2

b7	b6	b5	b4	b3	b2	b1	b0	← 70B-2
----	----	----	----	----	----	----	----	---------

b7, b6 = Reserved

b5 = Bit set when outbound SFI errors are detected

NOTE: Outbound errors: "two bits violations" or BIP-8 only for Frame #0 of the SFI

b4 = Bit set when one of the STATUS signal is in LOS (except for the unused ports)

b3 = Bit set when the selected 8KHz is in LOC

b2, b1 = Bit assigned to indicate the Level of the CDTM (11 for L1, 10 for L2 and 01 for L3)

b0 = Bit assigned to indicate the Plane (0 for A and 1 for B)

FIELD F3 (BTE #1)

b7	b6	b5	b4	b3	b2	b1	b0	← 70B-3
----	----	----	----	----	----	----	----	---------

b7 to b0 = Bits assigned to indicate STATUS LOA ports #0 to 7

FIELD F3 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0	← 70B-3
----	----	----	----	----	----	----	----	---------

b3 to b0 = Bits assigned for STATUS LOA #8 to 12

b7 to b4 = Bits allocated for CDTM level assignment

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FIG. 20D

FIELD F4 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 0 to 7

FIELD F4 (BYTE # 2)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 8 to 12

FIELD F5

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

708-5

b7 = Bit set when an 8 KHz input was selected

b6, b5, b4, b3 = Bits assigned to indicate which 8 KHz port was selected

b2 = Bit set when a forced alarm bit was received

b1 = Bit asserted by CDTM Highest Level to indicate that a system alarm has occurred in the previous EAS

b0 = Asserted by CSTG if a BIP-4 error was detected

FIELD F6

b3	b2	b1	b0
----	----	----	----

708-6

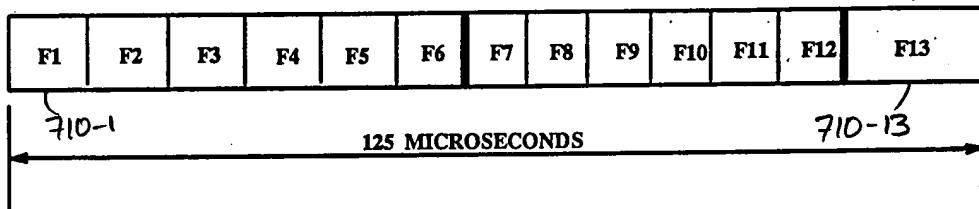
b3 to b0 = Bits assigned for BIP-4

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FIG. 20 E

FRAME # 1 + 64 x N (N = 0 TO 11) : THESE FRAMES ARE ALLOCATED FOR CDTM MIDDLE LEVEL

FRAME # 1+8 x N (N = 0 to 95) : THESE FRAMES ARE ALLOCATED FOR CDTM LOWEST LEVEL



CDTM MIDDLE LEVEL

F1 = 1 BYTE ALLOCATED FOR MISC. SIGNALS

F2 = 1 BYTE FOR CARD ID

F3 = 2 BYTES ALLOCATED FOR STATUS LOA

F4 = 2 BYTES ALLOCATED FOR INBOUND ERRORS (ONE BIT PER PORT)

F5 = 1 BYTE ALLOCATED FOR CLOCK SELECTION

F6 = 4 BITS ALLOCATED FOR BIP-4

CDTM LOWEST LEVEL

F7 = 1 BYTE ALLOCATED FOR MISC. SIGNALS

F8 = 1 BYTE FOR CARD ID

F9 = 2 BYTES ALLOCATED FOR STATUS LOA

F10 = 2 BYTES ALLOCATED FOR INBOUND ERRORS

F11 = 1 BYTE ALLOCATED FOR CLOCK SELECTION

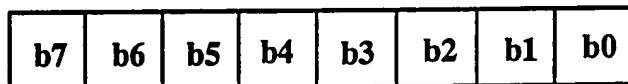
F12 = 4 BITS ALLOCATED FOR BIP-4

F13 = 1.5 BITS EMPTY FIELD (FORCED TO "0")

FIG. 20 F

FRAME # 1 + 64 x N (N= 0 to 11): THESE FRAMES ARE ALLOCATED FOR CDTM MIDDLE LEVEL

FIELD F1



b7 = Reserved

b6 = Reserved

b5 = Bit set when outbound SFI errors are detected

NOTE: Outbound errors: "two bits violations" or BIP-8 only for Frame #0 of the SFI

b4 = Bit set when one of the STATUS signal is in LOS (except for the unused ports)

b3 = Bit set when the selected 8KHz is in LOC

b2, b1 = Bit assigned to indicate the Level of the CDTM (11 for L1, 10 for L2 and 01 for L3)

b0 = Bit assigned to indicate the Plane (0 for A and 1 for B)

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FIG. 20G

FIELD F2

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

↳ 710-2

b7 to b4 = Bits assigned to indicate the CDTM ID

b3 to b0 = Reserved

FIELD F3 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 = Bits assigned to indicate STATUS LOA ports #0 to 7

↳ 710-3

FIELD F3 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 = Bits assigned to indicate STATUS LOA ports #8 to 12 (will be masked)

FIG. 20H

FIELD F4 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 0 to 7

↳ 710-4

FIELD F4 (BYTE # 2)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 8 to 12 (will be masked)

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FIG. 201

FIELD F5							
b7	b6	b5	b4	b3	b2	b1	b0

← 710-5

b7 = Bit set when an 8 KHz input was selected

b6, b5, b4, b3 = Bits assigned to indicate which 8 KHz port was selected

b2 = Bit set if a "forced alarms" bit was received

b1 = Bit asserted by CDTM Middle Level to indicate that a group alarm has occurred in the previous ESFI

b0 = Bit asserted by CSTG to indicate that a BIP-4 error was detected

FIELD F6			
b3	b2	b1	b0

← 710-6

b3 to b0 = Bits assigned for BIP-4 ("EVEN" PARITY)

FIG. 20J

FRAME # 1+8 x N (N = 0 to 95) : THESE FRAMES ARE ALLOCATED FOR CDTM LOWEST LEVEL

FIELD F7							
b7	b6	b5	b4	b3	b2	b1	b0

← 710-7

b7 = Reserved

b6 = Reserved

b5 = Bit set when outbound SFI errors are detected

NOTE: Outbound errors: "two bits violations" or BIP-8 only for Frame #0 of the SFI

b4 = Bit set when one of the STATUS signal is in LOS (except for the unused ports).

b3 = Bit set when the selected 8KHz is in LOC

b2, b1 = Bit assigned to indicate the Level of the CDTM (11 for L1, 10 for L2 and 01 for L3)

b0 = Bit assigned to indicate the Plane (0 for A and 1 for B)

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FIG. 20K

FIELD F8							
b7	b6	b5	b4	b3	b2	b1	b0

b7 to b0 = Bits assigned for CDTM ID

710-8

FIELD F9 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0

b7 to b0 = Bits assigned to indicate STATUS LOA ports #0 to 7

710-9

FIELD F9 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0

b7 to b0 = Bits assigned to indicate STATUS LOA ports #8 to 15

FIG. 20L

FIELD F10 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 0 to 7

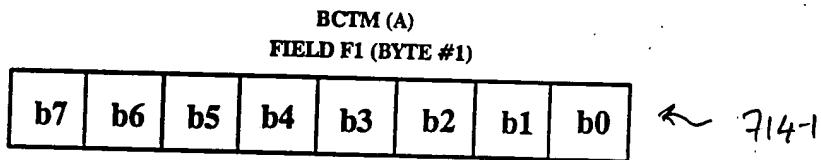
710-10

FIELD F10 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0

b7 to b0 Bits assigned to indicate STATUS LOS on ports # 8 to 15

FIG. 200

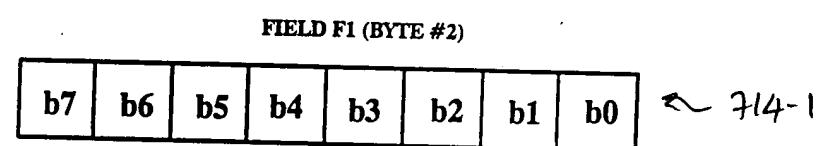


b7, b6 = Bits allocated for PSU #1 (A) alarm

b5, b4 = Bits allocated for PSU #2 (B) alarm

b3, b2 = Bits allocated for two Fan alarms

b1, b0 = Bits allocated for ESWT Pwr alarm



b7 = Bit allocated for Breaker Panel alarm

b6 = Bit allocated for Temp. control

b5 = Bit allocated to indicate Plane A Lost (LOC, LOS, SFI LOF)

b4 = Bit allocated to indicate Plane B Lost (LOC, LOS, SFI LOF)

b3 = Bit allocated to indicate "Two Bits Violation" or BIP-8 errors Plane A (only for the frame allocated for that particular rack)

b2 = Bit allocated to indicate "Two Bits Violation" or BIP-8 errors Plane B (only for the frame allocated for that particular rack)

b1 = One bit to indicate that a Forced Alarm bit was received

b0 = Reserved

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FIG. 20 P

FIELD F2 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b0 = Higher 8 bits of the BCTM ID

714-2

FIELD F2 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

b7 to b4 = Lower 4 bits of the BCTM ID

b3 = Bit set to indicate that an 8 KHz clock was selected

b2 to b0 = Bits allocated to indicate which clock was selected

FIELD F3

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

714-3

b7 to b0 = Bits allocated to indicate PBA "Health" from Slot #0 to Slot #7

(44)

1Q85-0007

Fig. 20 Q

FIELD F4

b7	b6	b5	b4	b3	b2	b1	b0	← 714-4
----	----	----	----	----	----	----	----	---------

b7 to b0 = Bits allocated to indicate PBA "Presence" from Slot#0 to Slot# 7

FIELD F5

b7	b6	b5	b4	b3	b2	b1	b0	← 714-5
----	----	----	----	----	----	----	----	---------

b7 = Bit set to indicate that a mismatch plane assignment was detected

b6, b5 = Bits allocated to indicate which plane was selected (A or B)

b4 = Bit set to indicate that a "System Slot Installed" bit was received

b3 = Bit set to indicate that SFI planes alignment errors are generated

b2 = Bit set to indicate that the selected 8 KHz is lost

b1 = Bit set to indicate an OR-ed function of all BCTM (A) alarms

b0 = Bit asserted by CSTG to indicate that a BIP-4 error was detected

FIELD F6

b3	b2	b1	b0	← 714 - b
----	----	----	----	-----------

b3 to b0 = Bits allocated for BIP-4

FIG. 20 R

BCTM (B)

FIELD F7 (BYTE #1)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

714 -7

b7, b6 = Bits allocated for PSU #1 (A) alarm**b5, b4** = Bits allocated for PSU #2 (B) alarm**b3, b2** = Bits allocated for two Fan alarms**b1, b0** = Bits allocated for ESWT Pwr alarm

FIELD F7 (BYTE #2)

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

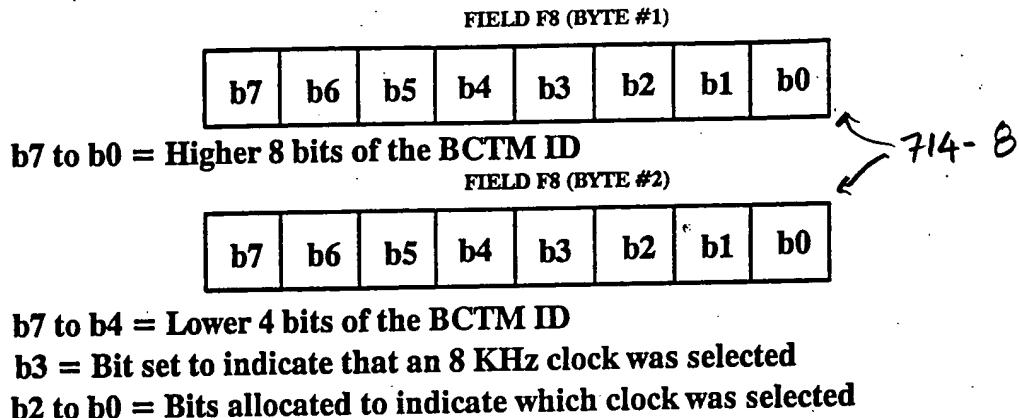
714 -7

b7 = Bit allocated for Breaker Panel alarm**b6** = Bit allocated for Temp. control**b5** = Bit allocated to indicate Plane A Lost (LOC, LOS, SFI LOF)**b4** = Bit allocated to indicate Plane B Lost (LOC, LOS, SFI LOF)**b3** = Bit allocated to indicate "Two Bits Violation" or BIP-8 errors Plane A (only for the frame allocated for that particular rack)**b2** = Bit allocated to indicate "Two Bits Violation" or BIP-8 errors Plane B (only for the frame allocated for that particular rack)**b1** = One bit to indicate that a Forced Alarm bit was received**b0** = Reserved

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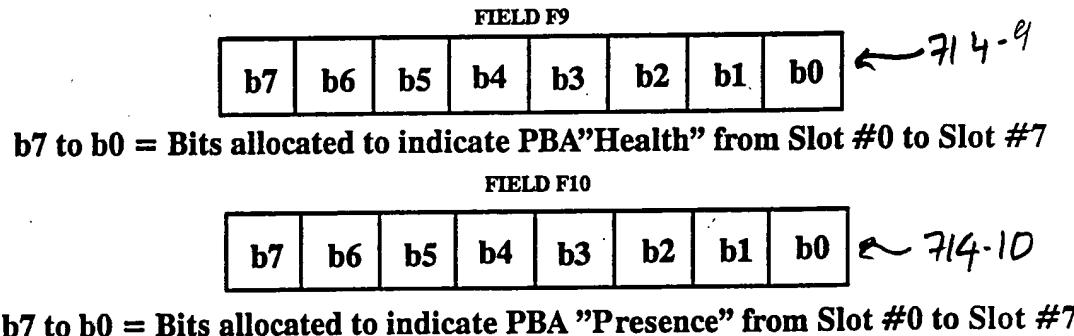
46

FIG. 20S



00000000000000000000000000000000

FIG. 20T



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FIG. 20 U

FIELD F11

b7	b6	b5	b4	b3	b2	b1	b0
----	----	----	----	----	----	----	----

← 714-11

b7 = Bit set to indicate that a plane assignment error was detected
b6, b5 = Bits allocated to indicate which plane was selected (A or B)
b4 = Bit set to indicate that a "System Slot Installed" bit was received
b3 = Bit set to indicate that SFI planes alignment errors are generated
b2 = Bit set to indicate that the selected 8 KHz is lost
b1 = Bit set to indicate an OR-ed function of all BCTM (B) alarms
b0 = Bit asserted by CSTG to indicate that a BIP-4 error was detected

FIELD F12

b3	b2	b1	b0
----	----	----	----

← 714-12

b3 to b0 = Bits allocated for BIP-4